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SILVERSTONE GRAND PRIX SPECIAL FORMULANS F

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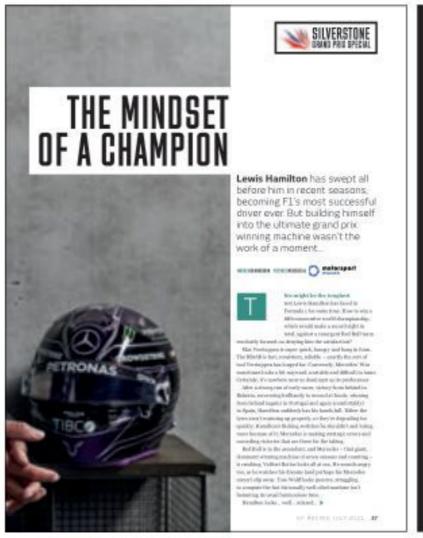
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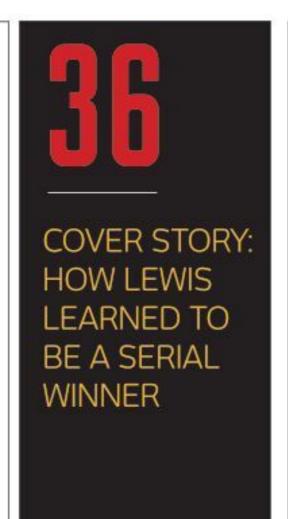
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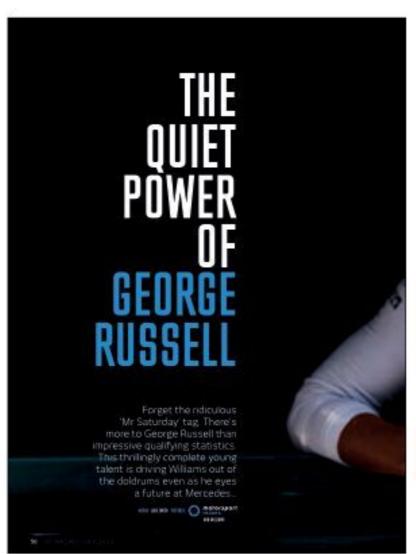
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IGNITION



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LUKE SMITH What is it, apart from his obvious qualifying heroics, that George Russell brings to Williams? Luke explains all on page 50



JAMES MANN

James is the snapper of our Now That Was A Car feature. We've chosen some of his best work for a British GP special (p74)



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Oleg interviews British F2 star, Alfa Romeo reserve and Ferrari test driver Callum llott about playing the F1 waiting game (p56)



STUART CODLING

A chat with Lando Norris about his ongoing development as an F1 driver is the main focus of Stuart's output this month (p42)



Back at last with something new to see...

Formula 1 is coming home! And this year's British Grand Prix is going to look and feel quite different – for a couple of important reasons. First, the race will take place with grandstands full, as part of the UK Government's 'Event Research Programme' - designed to guide decisions on mass attendance at major public events.

Silverstone won't exactly be a guinea pig for the UK's wider unlocking plan – the race takes place the day before Britain is due to lift all COVID-19 restrictions entirely – but it will allow up to 140,000 to watch the grand prix in person, provided they've had two COVID vaccinations or can provide proof of a negative COVID test as a condition of entry.

For those who've been longing but unable to see F1 cars in action up close since the onset of the pandemic, this move is long overdue. But for home hero Lewis Hamilton, so often the voice of reason in these strange times, the move seems like F1 fans being put at risk while COVID cases are rising and creating a so-called 'third wave' in the UK.

"It feels a bit premature to me," said Hamilton, who contracted coronavirus towards the end of last year. "I hope we learn something from it, and I hope people stay safe, keep their masks on. That's what I'd encourage everyone – continue to wash hands, continue to wear masks, particularly in those big crowds."

Speaking of guinea pigs, those who attend on

Drivers

managing

Art editor

Frank Foster

Group

editor

Friday and Saturday will experience a true first for Formula 1, as the new 'Sprint Qualifying' format is trialled. Friday's second free practice session will be replaced by the traditional Saturday afternoon qualifying format, setting the grid for a 30-minute race the results of which will set the grid for Sunday's main event.

Exciting way to shake-up a moribund format, or needless tinkering that will make grids more predictable? You decide. But it's not going away this will be the first of several such pilots through the rest of this season.

Regardless, Silverstone boss Stuart Pringle (page 60) is delighted to be back in business and enjoying the healthier working relationship the British GP now has with Formula One Management.

To help you get ready for this summer's premier F1 event, we've dedicated the bulk of this issue to celebrating Formula 1's original grand prix. We have a special feature on world champion Hamilton (page 36), an exclusive interview with McLaren star Lando Norris (page 42) and analysis of the brilliant work George Russell has done to help turn the struggling Williams team around (see page 50).

We also chat to Callum Ilott (page 56), who could become the first Brit to race an Alfa Romeo in Formula 1 since Reg Parnell at the inaugural 1950 race at Silverstone. Whatever happens this weekend, it will mark another significant milestone as F1 enters its eighth decade.

Team
principals

Editor Ben Anderson President, Motorsport Network Vice President of editorial James Dickens

Pit crew

Principal Stewart Williams **Executive editor** Stuart Codling Ben Edwards

Editorial tel +44 (0)20 3405 8100

photographer Steven Tee Columnists Pat Symonds Mark Gallagher Nigel Roebuck

Production controller

Ben Webster

Photo agency

Director, global

client success

Sunita Davies

Motorsport Images

Advertising

Head of print advertising Ben Fullick ben.fullick@autosport.com Sales executives Alex Edwards alex.edwards@autosport.com

Kieran Rennie kieran.rennie@autosport.com

Subscriptions Partners

Email: help@asm secureorder.co.uk Customer hotline/ back issues 0344 848 8826 Subscriptions

marketing

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executive

Matt Sleight

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ALPINE

Official fuel consumption on mpg and CO_2 emissions (g/km) for the Alpine A110 Légende GT 2021 petrol, 215KW are: Total consumption combined (mpg): 41.5 WLTP; CO_2 emissions combined (g/km): 154 WLTP. Emissions standard: Euro 6d-FCM-ISC. Official fuel consumption on mpg and CO_2 emissions (g/km) for the Alpine range are: 42.2 – 40.9 WLTP; CO_2 emissions combined (g/km): 152 – 157 WLTP. Emissions standard: Euro 6d-FCM-ISC. The CO_2 figures are based on the WLTP test cycle which will be used to calculate vehicle tax on first registration. For more information, please see **alpinecars.com/en/wltp/**



A hair-raising restart moment

I'd been at the last corner for much of the Azerbaijan Grand Prix and at first I didn't know why the race had been stopped. I jumped on a golf buggy and headed back, encountering the scene of Max Verstappen's accident on the way.

I didn't expect them to restart the race with a couple of laps to go but I'm glad they did. To get this shot I had to lean out of the hole in the fence – which was interesting, to say the least... The light was very nice at the time, playing around the baroque architecture of Government House and backlighting the tyre smoke as Lewis made a very rare (and costly) mistake and slid off at the first corner.



Photographer Charles Coates

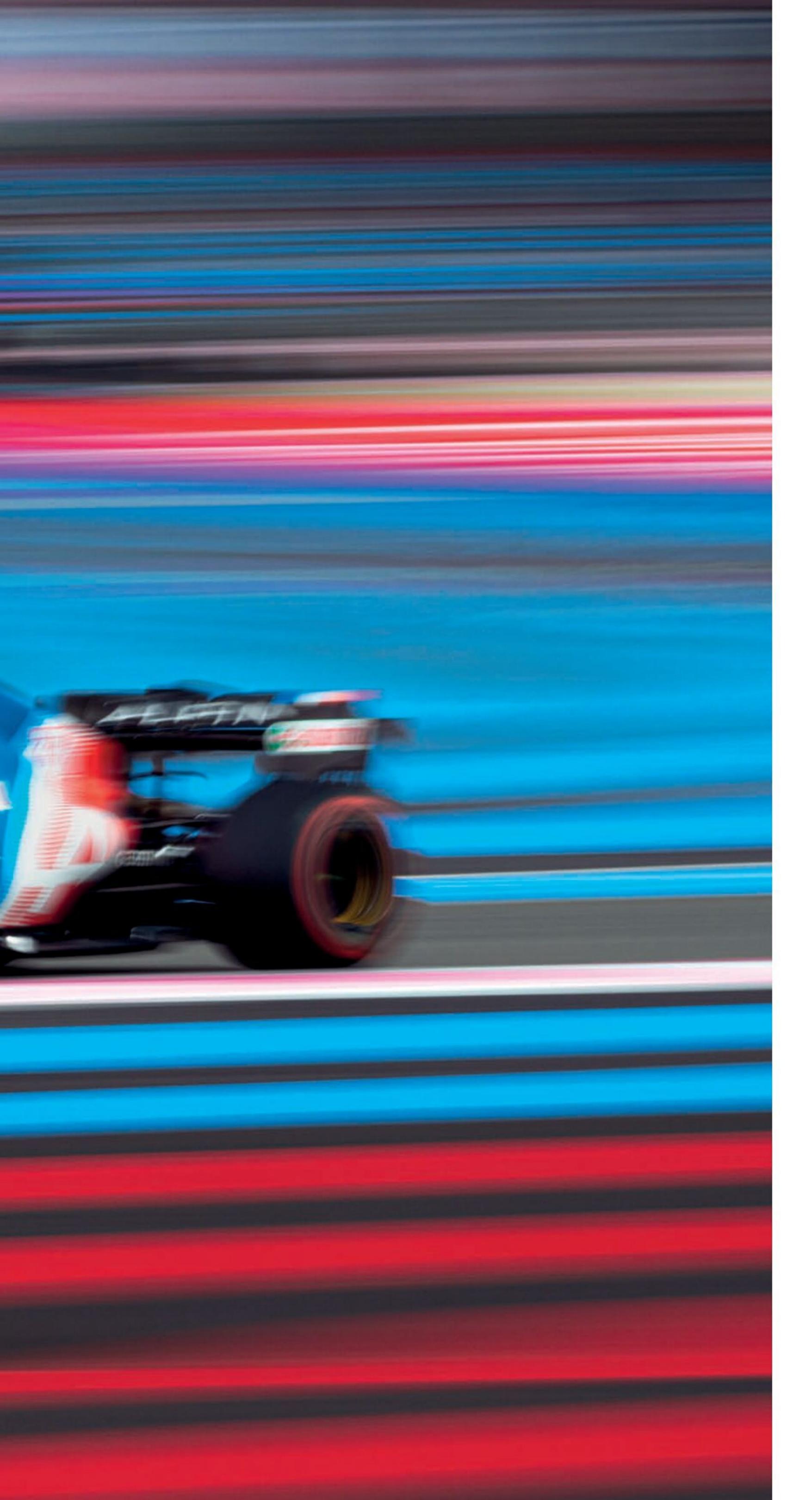
Where Azerbaijan, Baku When 5.14pm, Sunday 6 June 2021

Details Canon EOS-1DX MkIII, 16-35mm lens, 1/13200th @ F5.6











Esteban Ocon earns his stripes

With a fresh contract extension tucked in his pocket, Esteban Ocon has pledged his immediate future to Alpine (which is a tacit admission that he's out of the running at Mercedes).

I shot from this angle at a 1000km sportscar race here at Paul Ricard a month earlier and liked the results so I hoped it would be spared the clutter of ugly advertising boards that adorn so many circuits when F1 is in town. Luckily it was so I took up the same position. The Alpine team's livery co-ordinates particularly well with the red and blue stripes of Paul Ricard's extensive run-off areas, which helps with the graphic effect of this shot.



Photographer Drew Gibson

Where Paul Ricard, France When 3.15pm, Saturday 19 June 2021

Details Canon EOS-1D MkII, 400mm lens, 1/13th @ F32



Aston Martin's decisive pitstop

Being in a team's bubble remains limiting in some ways even as various other bits of F1 open up. You have to stay in its pit area but that does provide opportunities to get interesting angles on the neighbouring teams – in this case Aston Martin, which is next door to McLaren. This is the stop which helped Sebastian Vettel earn his podium finish.

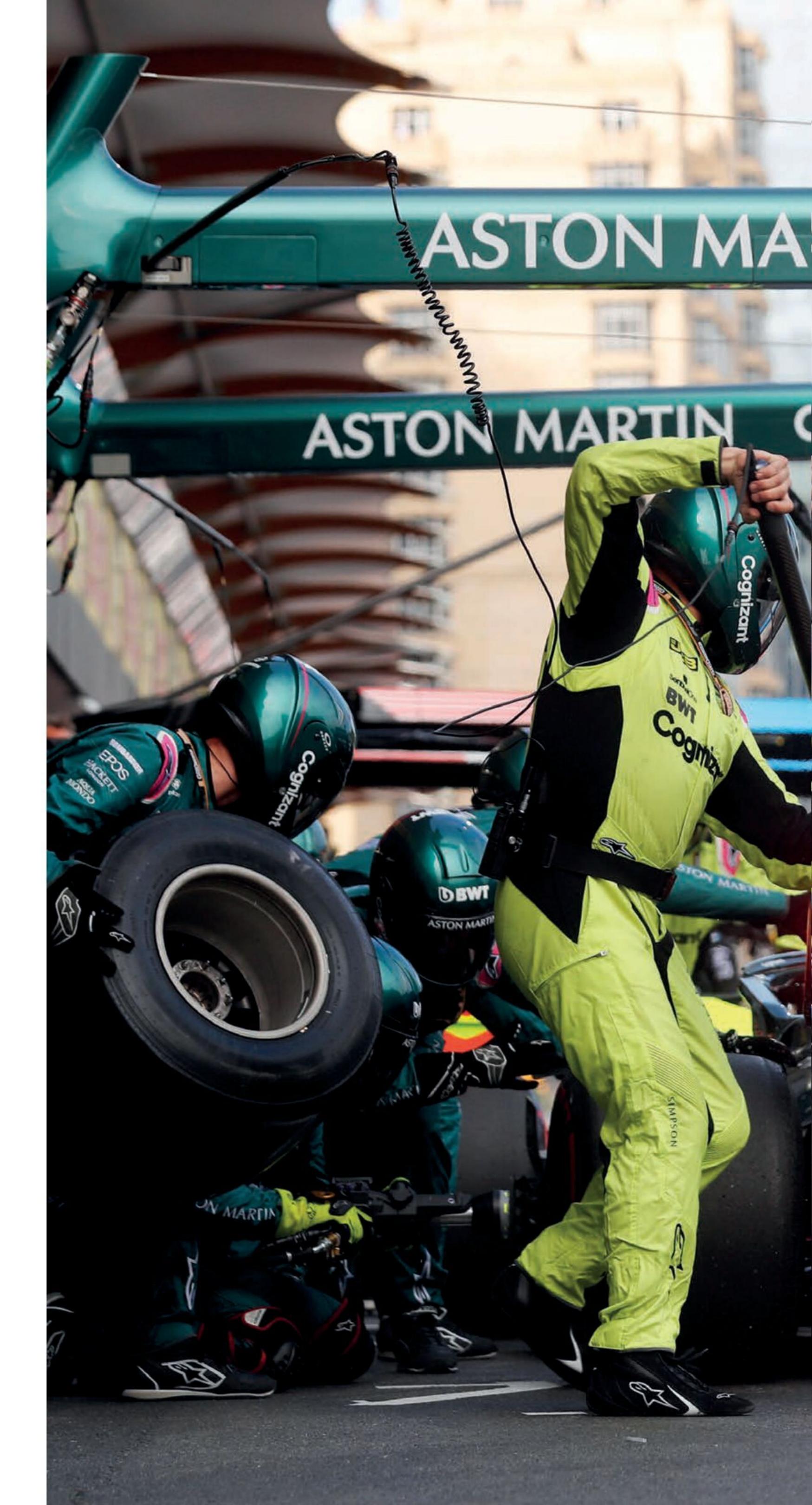
I was able to stand here because both McLarens had already stopped and were unlikely to return except in case of emergency. Pitstops are so quick these days that you're very much in the hands of your motor drive – fortunately my timing was as effective as Aston Martin strategist Bernie Collins!



Photographer Steven Tee

Where Azerbaijan, Baku When 4.35pm, Sunday 6 June 2021

Details Canon EOS-1DX MkII, 70-200mm lens, 1/1000th @ F5







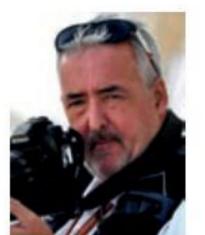




Respect for a lifetime's work

One of my responsibilities at each race weekend is to shoot the front-of-the-grid ceremony for the photographic pool. Usually this consists of the national anthems and various celebrity attendances but in Baku there was a more sombre formal occasion as the drivers and team principals gathered for a minute's silence to mark the passing of former FIA president Max Mosley and key McLaren investor Mansour Ojjeh.

Both these men had a big impact on F1 so it was natural to pause and pay our respects. Obviously that's quite tricky when you're taking pictures, so the key thing is to pick your spot in advance and work quickly.



Photographer Mark Sutton

Where Baku, Azerbaijan When 3.43pm, Sunday 6 June 2021

Details Nikon D6, 14-24mm lens, 1/320th @ F16







Paul Ricard's mirror image

The garage floors at Paul Ricard are really highly polished, which serves up the possibility of nice reflections - provided you're willing to get down low and stay there until the right moment arrives. Since the cars are coming past quite quickly it's a case of getting the composition worked out in advance and relying a bit on the motor drive when you execute it.

What I liked about this shot is that as well as the immediately striking element of Sebastian Vettel's Aston Martin and its reflection in the floor, there are other interesting details as well, sich as the endplate damage. The Alfa Romeo in the background also adds something.



Photographer Glenn Dunbar

Where Paul Ricard, France When 11.48am, Friday 18 June 2021

Details Canon EOS R5, 28-70mm lens, 1/6400th @ F2.2



PIRELLI GETS A GRIP New design fast-tracked after Baku failures

NEW TYRES AIM TO CALM TENSIONS

Pirelli is to evaluate a new rear tyre design at the Austrian Grand Prix, due to take place shortly after this issue of *GP Racing* closed for press. The move comes as a response to the controversial failures which eliminated Lance Stroll and Max Verstappen from the Azerbaijan Grand Prix. Each driver will have two sets to evaluate during Friday practice and, if the trial is deemed successful, the new construction will be introduced at the British Grand Prix.

The new design incorporates a number of ideas, which were initially developed for the next generation of tyres that will be on the 18-inch rims coming next year. Pirelli's aim is to make the shoulder of the rears more robust, addressing a potential weakness it has guarded up to now by setting strict limits on tyre pressures and camber angles. Many teams and drivers have complained that these pressures are too high, militating against good grip levels.

"With this new structure Pirelli provides a tyre that can guarantee even greater levels of integrity under the extreme conditions that can be generated by the current cars," said the company in its official announcement.

Dealing with the forces generated by the current generation of F1 cars has proved problematic in recent seasons. At the 2020 British GP several drivers, including race winner Lewis Hamilton, suffered dramatic tyre failures in the closing stages. The threat of ongoing development taking the cars far beyond the tyres' tolerances prompted Pirelli to (successfully) lobby the FIA to implement measures to reduce downforce ahead of this season.

Despite this, two different cars suffered identical failures in Baku. In Verstappen's case it cost him victory in the race. Pirelli initially suggested debris was to blame but investigations revealed both tyres had suffered "circumferential breaks" around the outside of the tread. The tyre company claimed this was a result of the teams in question – Red Bull and Aston Martin – running the tyres at a lower pressure than they should have, which induced a "standing wave" across the surface of the tread under duress. Eventually these forces led to shearing and failure.

Running tyres at a lower pressure can increase the socalled contact patch, the area of the tyre surface which is in contact with the track. But this comes with a penalty in the form of more sidewall movement, which induces the standing wave. Pirelli's contention was that the teams had found a way of complying with the minimum pressure requirements at the time of measurement, before the race start, but subsequently lowering them. Both Red



Max Verstappen's
tyre failure in Baku, on
top of Lance Stroll's
earlier in the race, has

prompted Pirelli to act

Bull and Aston Martin refuted this.

At the moment Pirelli does not have access to 'live' tyre pressure data while the cars are running, but it will next year. In the interim it hopes this new construction will enable the rear tyres to be more robust and less temperature sensitive. Naturally, though, there may be some resistance from the teams if they feel the change gives rivals an advantage, or requires costly adjustments to their own cars to achieve optimum performance. Pirelli says this should not be the case.

"On paper, the changes are not big in terms of expected behaviour," said the company's motorsport manager,





Mario Isola. "So I don't think they will affect the competitive order of the teams. They have to test them and obviously they will try to understand the new tyre as soon as possible.

"That is normal, there is always a learning curve. Obviously we're not talking about a completely different tyre. That means I'm not expecting this learning curve will be a long period. But again, we are planning to release data in order to help the teams to understand the new construction better and in a shorter time."

Pirelli says the new tyres are not significantly heavier than the current generation, and that they will be able to run at much lower pressures. But the learning curve Isola alluded to is significant: the new Sprint Qualifying format is due to be evaluated at Silverstone on the same weekend as the new tyres, provided they are approved. This means the teams will have just one 60-minute practice session before qualifying on Friday, ahead of the sprint event on Saturday.

"That's a curveball," said Mercedes boss Toto Wolff.

"Nobody really knows on which head it is going to detonate.

You could be on the lucky side or on the unlucky side. It's very much an unknown.

"But as long as it's the same for everybody, we can cope." >



OCON SIGNS THREE-YEAR ALPINE DEAL

Esteban Ocon became the latest F1 driver to commit to a long-term arrangement with their existing team by announcing a three-year contract extension with Alpine. He will remain with the Anglo-French team through 2024.

The 24-year old joined the team last year when it was known as Renault. He has longstanding ties with Mercedes, having been on the company's F1 junior driver programme and acted as its reserve driver until his loan move to Renault. Mercedes team principal Toto Wolff is also part of his management group, though he has operated at arm's length in recent years.

"It feels good," said Ocon. "It's a weight off the shoulders, I would say. I can focus on performance and what matters now that the rest is secured. I felt good in the team, I feel very well integrated, the atmosphere is fantastic and we are working very nicely. Obviously, we have a great chance of doing good things next year with the new regulations, so it's definitely a perfect place for me to be staying."

The new contract in effect removes Ocon from contention for a 2022 seat at Mercedes, which currently has two vacancies since both Lewis Hamilton and Valtteri Bottas are out of contract at the end of this season. While Hamilton is widely expected to stay, and is in negotiations for a new deal, Bottas's future is rather more up in the air.

However, Alpine F1 CEO Laurent Rossi has confirmed that Ocon's new contract does not feature a break clause which would enable him to take up a Mercedes



Ocon has signed with Alpine until the end of 2024, rather than wait for a Mercedes seat

seat if one became available.

"He is a Mercedes-managed driver, that's about it," said Rossi. "He stays with us."

"I'm completely an Alpine driver for the next three years,"

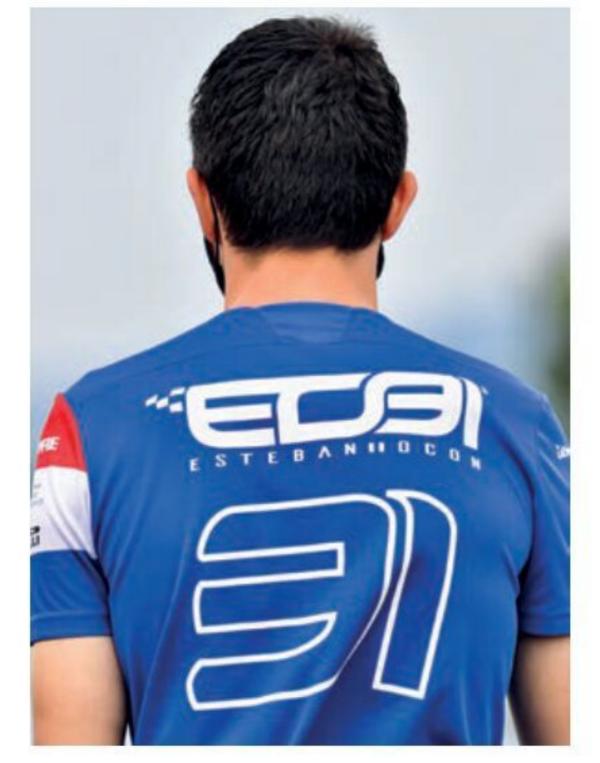
said Ocon. "That's where I stand at the moment. For sure, there's still connections with Mercedes, but the job I'm doing is to be with Alpine, and fully with Alpine, so there will be nothing and no interaction with the Mercedes Grand Prix team."

Ocon declined to comment on whether he had entered negotiations with Mercedes about his future before committing to the new long-term deal with Alpine.

"What I know is that I feel really good here," he said. "That's all I care about in the end and that's all I need to focus on in the future. I think it is a great decision for me, for my career. A massive step forwards and it's the longest deal I've ever had in motorsport, in my whole career.

"Coming from where I was a couple of years ago [when Ocon was forced into the Mercedes

reserve role after losing his seat at Force India/Racing Point to Lance Stroll], I think it is an awesome position to be in. So I'm really pleased."



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VETTEL AT ASTON

How Seb is helping with the team's evolution

MERC IN A SCRAP

How Mercedes is responding to the 2021 title battle

- > Why Esteban Ocon has signed a long-term Alpine deal
- > McLaren's Zak Brown on the team's expansion
- > The history of Lotus part 5: the Senna years
- > Now That Was A Car: BRM's 201













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SO LONG SOCHI AS ST PETE'S SWEEPSIN

The Russian Grand Prix will visit Sochi for the last time in 2022 as the event moves to the recently completed Igora Drive facility near St Petersburg the following year. The Black Sea resort, where Vladimir Putin maintains a summer palace, has hosted the race since its inception in 2014, when it also hosted the Winter Olympics.

Designed by Hermann Tilke, Igora Drive was completed in 2019 and was due to host a round of the DTM and W Series last year before the pandemic forced them to cancel. The facility offers a number of different tracks including an oval, while the main circuit carries FIA Grade 1 status, is 2.54 miles long and features 15 corners on an anticlockwise layout.

"I am impressed with St Petersburg and I am confident that the Russian Grand Prix at Igora Drive will be an amazing event," said F1 CEO Stefano Domenicali.

Aside from its history of producing uneventful grands prix, Sochi has also drawn criticism for being an unwelcoming locale which is singularly difficult to reach from outside Russia. Igora Drive's relative proximity to one of the country's major cities -St Petersburg is 54km away – makes it more reachable.

Closer to the present, the current calendar continues to undergo adjustment as F1 reacts to the changing circumstances of the pandemic. The Turkish GP is set to return later this season in the 3 October slot vacated by the Singapore GP, which was officially cancelled at the beginning of June.

Istanbul Park was due to

replace the cancelled Canadian GP in June, only for that to fall through because of travel restrictions. Turkey's presence on the UK government's 'red list', which requires returning travellers to observe a 10-day quarantine in an approved hotel, was a deal-breaker given the majority of F1 teams are UK-based.

The race's new slot, in the middle of a triple-header between the Russian and Japanese GPs, means this is less likely to be an issue. But doubts remain over other events. Travel into Japan remains problematic even though the Tokyo Olympics are going ahead. Brazil and Australia are also in doubt.

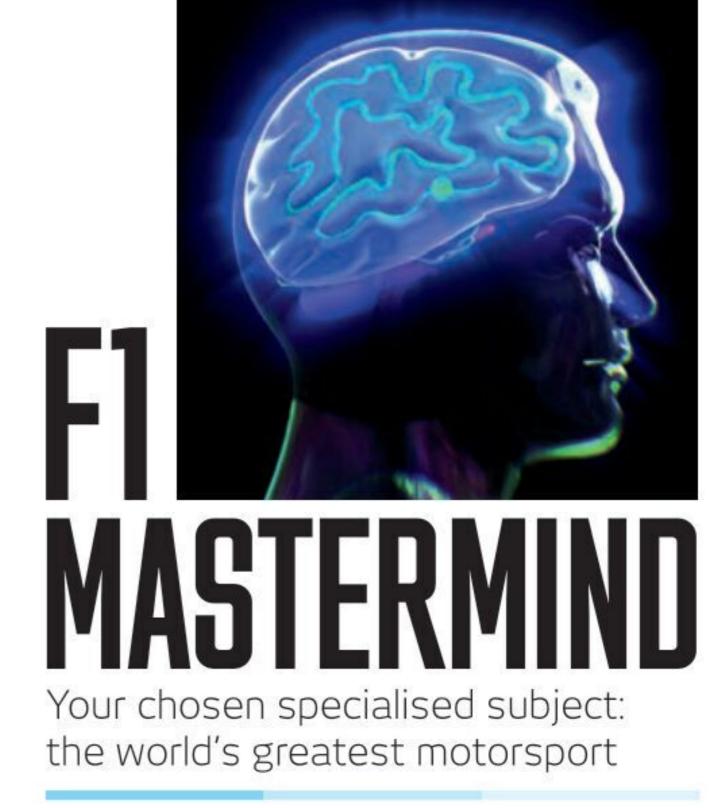
Although *GP Racing* understands F1 is considering the possibility of hosting two races in the USA, talks are still at an early stage about hosting a second race at the Circuit of The Americas. Paddock gossip has even suggested a return to Indianapolis may be on the cards...

"I AM IMPRESSED WITH ST PETERSBURG THAT THE RUSSIAN **GRAND PRIX AT IGORA DRIVE WILL** BE AN AMAZING EVENT."

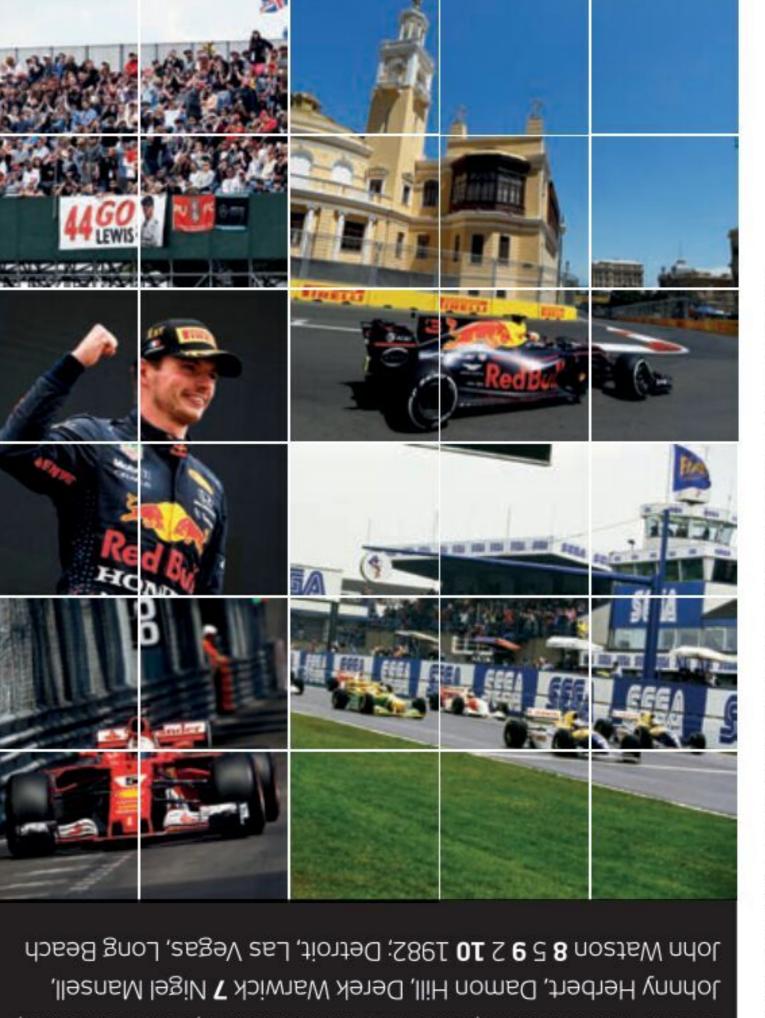
STEFANO DOMENICALI



Sochi will host its final Russian GP in 2022, before the race switches to St Petersburg



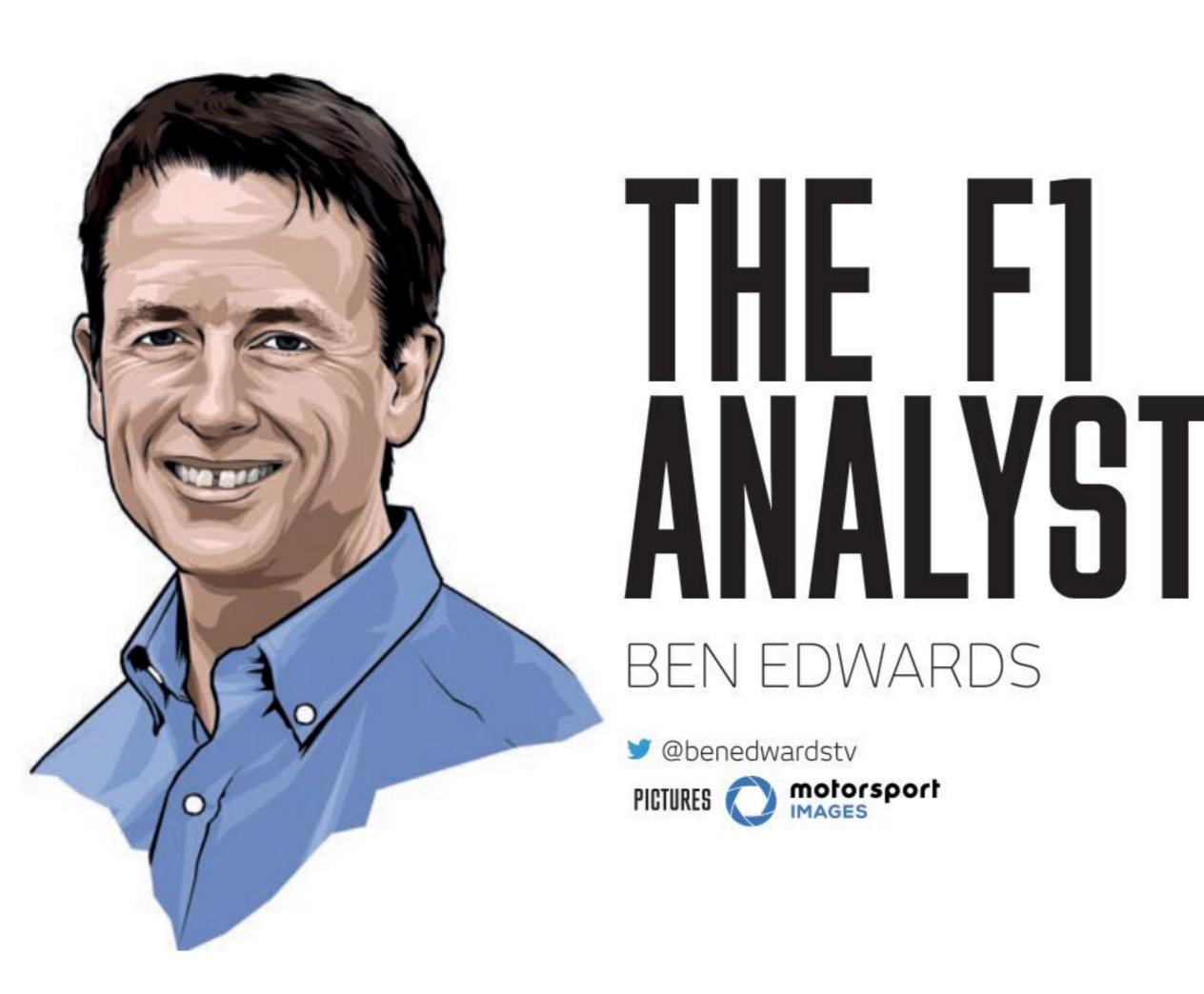
- Q1 Apart from winning the race, what other feat did Max Verstappen achieve for the first time at the recent French GP?
- Q2 After which GP was the last time Mercedes didn't lead the constructors' world championship?
- Q3 True or false: there have been five different winners of the five races held so far in Baku?
- Q4 How many times has Ferrari won the Monaco Grand Prix: 9, 12 or 14?
- Q5 Three GPs topped a total three-day attendance of over 300,000 in 2019, the last time spectators were fully allowed to attend races. The British GP was one, but which were the other two?
- Five British drivers started the 1993 European Grand Prix at Donington Park. Who were they?
- Q7 Which two British drivers finished in the top three of the drivers' championship during the 1980s?
- Q8 How many times has the British Grand Prix been held outside the month of July: 3, 5 or 8?
- Q9 How many times did David Coulthard win the British GP in his F1 career?
- In which season were three races held in the USA and which were the three venues?



3 True 4 9 5 Australia, Mexico 6 Mark Blundell, Martin Brundle, A His first hat-trick of win, pole, fastest lap 2 2018 British GP







or second in the constructors' championship for the next four years – but a drivers' title proved elusive. Runner up in 1985, Michele Alboreto was frustrated by a lack of engine power, and delays in building a new windtunnel didn't help.

Impatient as ever, Enzo Ferrari decided to bring in another Brit: John Barnard. His design skills were utilised from Godalming, as he had no desire to move to Italy, but his influence was powerful and led to a competitive if unreliable car in 1989, the development of which went on to win the British GP in 1990 in the hands of Alain Prost. Sadly, by then Enzo had passed away and Barnard had fallen out with the reorganised management structure.

British influence was re-energised when returning boss Luca di Montezemolo employed both Postlethwaite and Barnard in separate areas for Ferrari in the early 1990s, before Jean Todt re-jigged the structure once more and gave Ross Brawn the technical lead. Under Brawn, Ferrari would go on to win at Silverstone four times in seven attempts. Kimi Räikkönen's 2007 victory was in a car still descendant from that era. Since then things have been a little quieter, but Fernando Alonso's 2011 success stands out as an unexpected result.

A change in regulations regarding blown diffusers boosted Ferrari's hopes against that season's dominant Red Bulls, another connection to the present day. Mark Webber managed to top the Red Bull front row, with Sebastian Vettel alongside, but Alonso was a close third. Vettel stole the advantage at the start from Webber, as damp conditions required intermediates but Alonso stayed in the frame and looked even stronger once everyone switched to slicks. It was during the second stops when it fell apart for Red Bull; Webber's left-front wheel undid him, while Vettel's car got stranded when the rear jack collapsed. Suddenly Alonso's consistent pace put him at the head of the field. He ticked off the remaining laps in suitably accomplished style, winning comfortably and setting fastest lap along the way. It was Ferrari's sole win of the year, but a reminder of that connection between Blighty and Maranello which Vettel himself consolidated in 2018 by claiming the team's most recent Silverstone success.

Seventeen British GP wins to date; is it time to come of age with 18? Ferrari's pace in slow corners may not be as useful at Silverstone, but sector two at Barcelona is a fast, flowing section where Charles Leclerc set the fourth fastest time in qualifying this season, a tenth behind Max Verstappen. Having achieved two podiums and a fourth in his three attempts in the UK with Ferrari, perhaps Leclerc can deliver a surprise victory and help the Scuderia celebrate its 70th anniversary in style.

FERRARI'S SPECIAL BRITISH CONNECTION

Italian Anglophiles... The relationship between Ferrari and the United Kingdom has been special ever since the team's first world championship race win at Silverstone in 1951. As the 70th anniversary of that magnificent José Froilán González victory over Alfa Romeo is celebrated this year, the Scuderia will be hoping to rekindle the association.

The 1950s was a golden decade for Ferrari in the UK with six wins at the British Grand Prix.

The success and passion of the Italian team was adopted by many local fans, especially when Kidderminster's Peter Collins won the race in 1958 and his Ferrari team-mate Mike Hawthorn went on to become the first British world champion.

John Surtees enhanced that connection when he became the second, and currently the last, British driver to win the title with Ferrari, but repeating the victories at Silverstone, Aintree or Brands Hatch proved difficult. A 15-year lull eventually ended in 1976 as Niki Lauda won at Brands after James Hunt was disqualified.

Despite our traditionally fickle summer weather,

the race has only been won four times in over 70 attempts by a driver starting outside the top five on the grid. In 1978 Ferrari's prospects looked particularly bleak as Lotus secured the front row at Brands while Ferrari's Carlos Reutemann lined up eighth. Ronnie Peterson and Mario Andretti confirmed Lotus supremacy early on, but poor reliability destroyed their hopes and also affected the subsequent duel between Jody Scheckter and Alan Jones. Shortly afterwards, Riccardo Patrese lost second due to a puncture and the race became a battle between world champion Lauda in his Brabham and Reutemann in the Ferrari.

Overtaking at the Kent circuit is as tough as at the Hungaroring, but Reutemann took full advantage as Bruno Giacomelli was about to be lapped. Lauda committed himself one way just as Bruno moved in the same direction to try and give space. Reutemann went for the opposite, launching down the inside into Clearways and fending Lauda off to Paddock Hill Bend before taking a clear lead.

Victory that day from the lowest grid position to date for a winner of the British GP is hopefully a highlight that has stayed with Carlos, a man who has been going through some tough health issues recently. The team had to wait another 12 years before the next win came at Silverstone, by which time British influence within the organisation had grown in different ways.

Designer Harvey Postlethwaite signed up in 1981 and became responsible on the chassis side. His cars were competitive – Ferrari finished first



Kimi Räikkönen's success in 2007, his title-winning season, was Ferrari's fourth in six years at the home of British motor racing

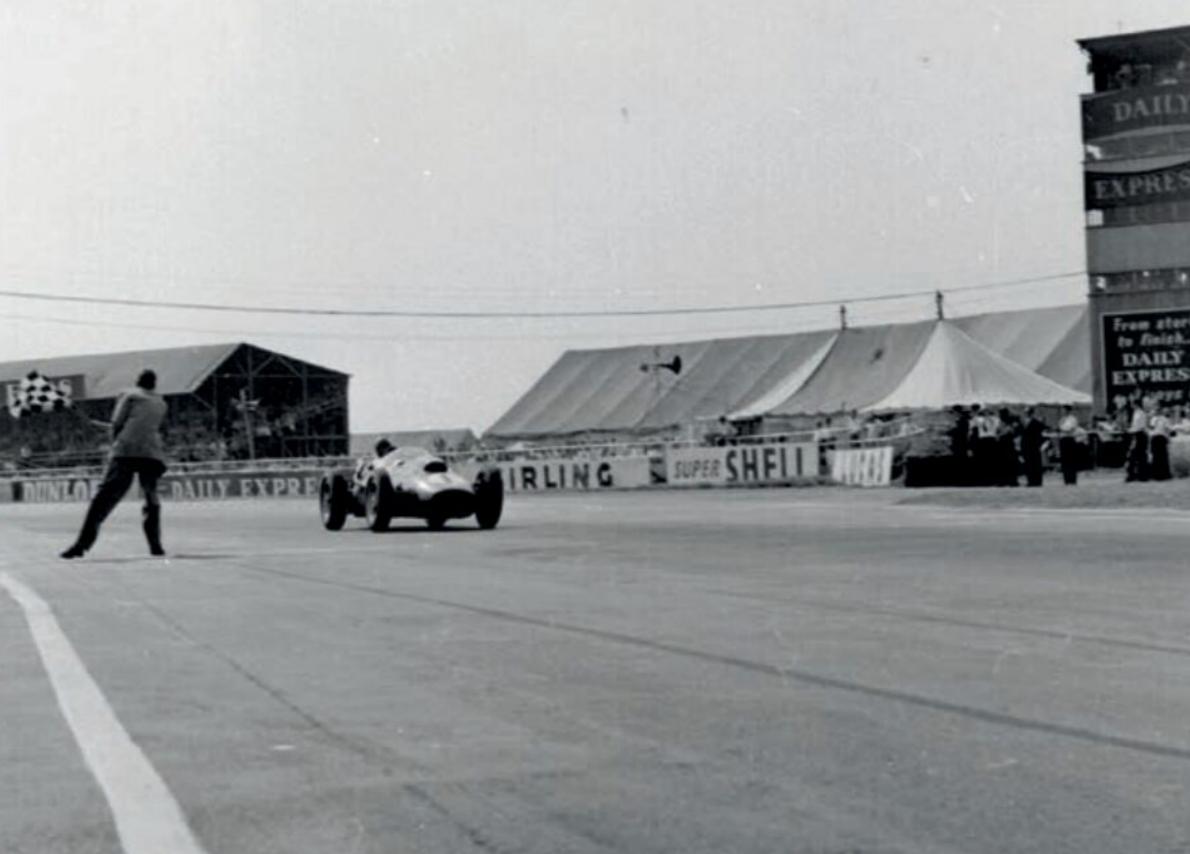


In the 1960s John
Surtees kept the link
between Ferrari and
Britain strong by winning
the 1964 world title

With Silverstone's new pit complex towering over the finish line, Fernando Alonso completed an unexpected victory in 2011

Peter Collins won the 1958 British GP, the sixth triumph in the race in the 1950s for the Scuderia, and team-mate Mike Hawthorn claimed the world championship

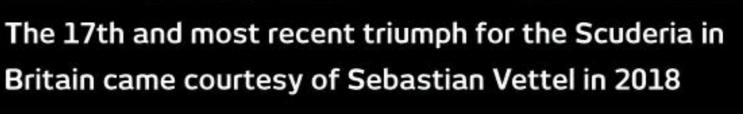




Carlos Reutemann's 1978 victory at Brands Hatch was Ferrari's last on British soil for 12 years





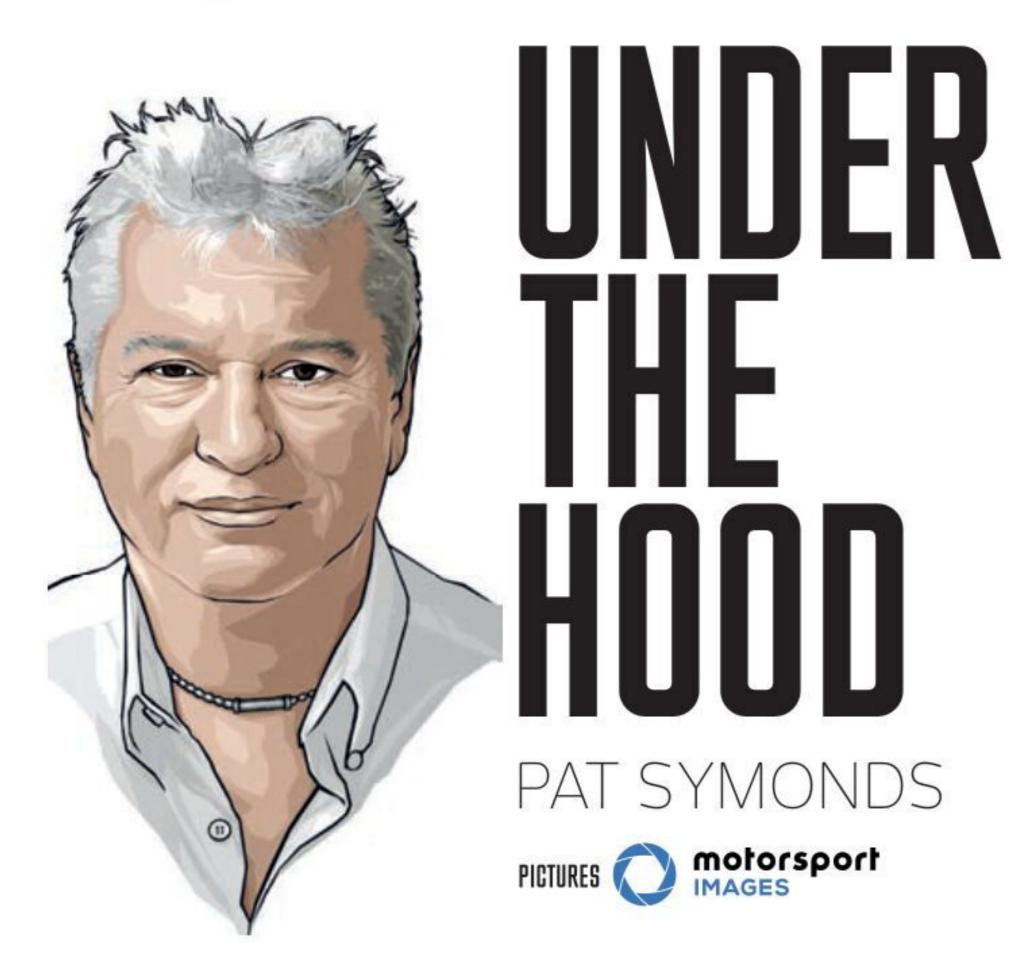




British design influenced the Ferrari that Alain Prost

used to great effect to win the 1990 British GP





deflect sufficiently to modify their own aerodynamic performance, in other words to have a degree of aero-elastic response.

The real question is whether such deflection enhances or detracts from the car's overall performance. In reality it is not the magnitude of the deflection but rather the effect that is of importance.

This means that some areas can be more flexible than others if the result of that flexibility does not make much difference to performance. Of course, this can often be difficult to determine. For example, it is accepted that the front of the floor has to have some flexibility to ensure the chassis is not damaged if the car hits a kerb. This very same flexibility, if not carefully controlled, will also allow

the car to be run at a lower ride height, which instantly adds performance.

While it might be thought flexibility is used either to increase downforce or reduce drag, there are other subtleties that can be as effective. For many years we used various different composite lay ups for the front flaps so that we could tune the deflection such that they backed off at high speed. This allowed us to set the car up to reduce low-speed understeer while relying on the change in aerodynamic balance achieved by the flexi-flap to keep it stable in high-speed corners. The different lay-ups would allow us to choose the rate at which the balance changed with speed. It took a while before tests were introduced to stop this practice.

The current dispute started with a suspicion that certain rear wings were backing off and reducing drag. This is nothing new. The FIA clamped down on this practice in 2004, by introducing pull back tests on the rear wing. Ironically, a technical directive issued by the FIA at the time answers a number of questions posed by Nikolas Tombazis, then chief aerodynamics engineer at McLaren and now, in a classic case of poacher-turned-gamekeeper, the FIA's single-seater technical head.

There are several methods that can be used to achieve this particular aim, and exploiting the regulations to their utmost is not cheating, it is merely what technical directors are paid to do. So for example, if a rear wing mainplane has a relatively flexible construction that de-cambers the wing at speed and therefore starts to open

FLEXIBLE WINGS DISCOURSE IS NOTHING NEW

Every season brings a new contentious technical argument that occupies the attention of teams, the FIA and fans alike. This year there has been a focus on flexible wings, but unlike many previous discussions, such as the Mercedes dual axis steering system from last year, this one is anything but new.

We can go back as far as 1980 in the technical regulations, then known as Appendix J of the Sporting Code, when the entire set consisted of just 11 pages compared to today's 137, to see the origins. There it is stated that the coachwork, as it was quaintly known then, must be rigidly secured to the entirely sprung part of the car and must remain immobile in relation to the car. In 1980 there was a single exemption to allow sliding skirts but even this was removed for 1981. By 1982 Formula 1 regulations were removed from the old Appendix J to stand in their own right. It was the start of ever more detail and complexity.

While there were undoubtably several designs that either intentionally or through poor design



The debate surrounding the flexibility of certain rear wings this season has become quite heated

resulted in aerodynamic structures that were anything but rigid, it was not until 2000 that additional tests were introduced on the floor and front wings to examine legality.

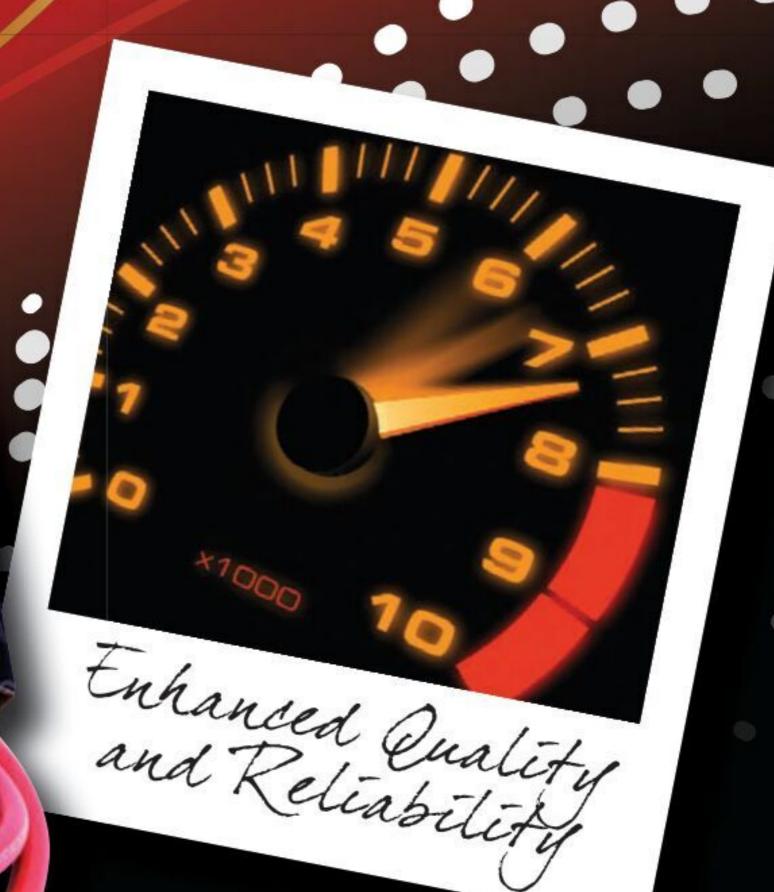
It must be pointed out that all engineering structures will deflect when subjected to load.

On a car there will be some components designed to strength criteria, some designed to stiffness criteria, but it is generally understood designers will choose the lightest structure that will satisfy those individual design criteria. In particular, for those surfaces affecting the aerodynamic performance of the car, practical weight considerations will mean some components will

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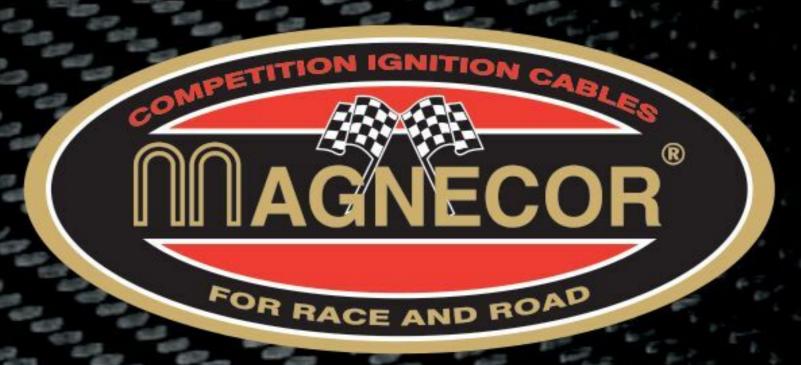
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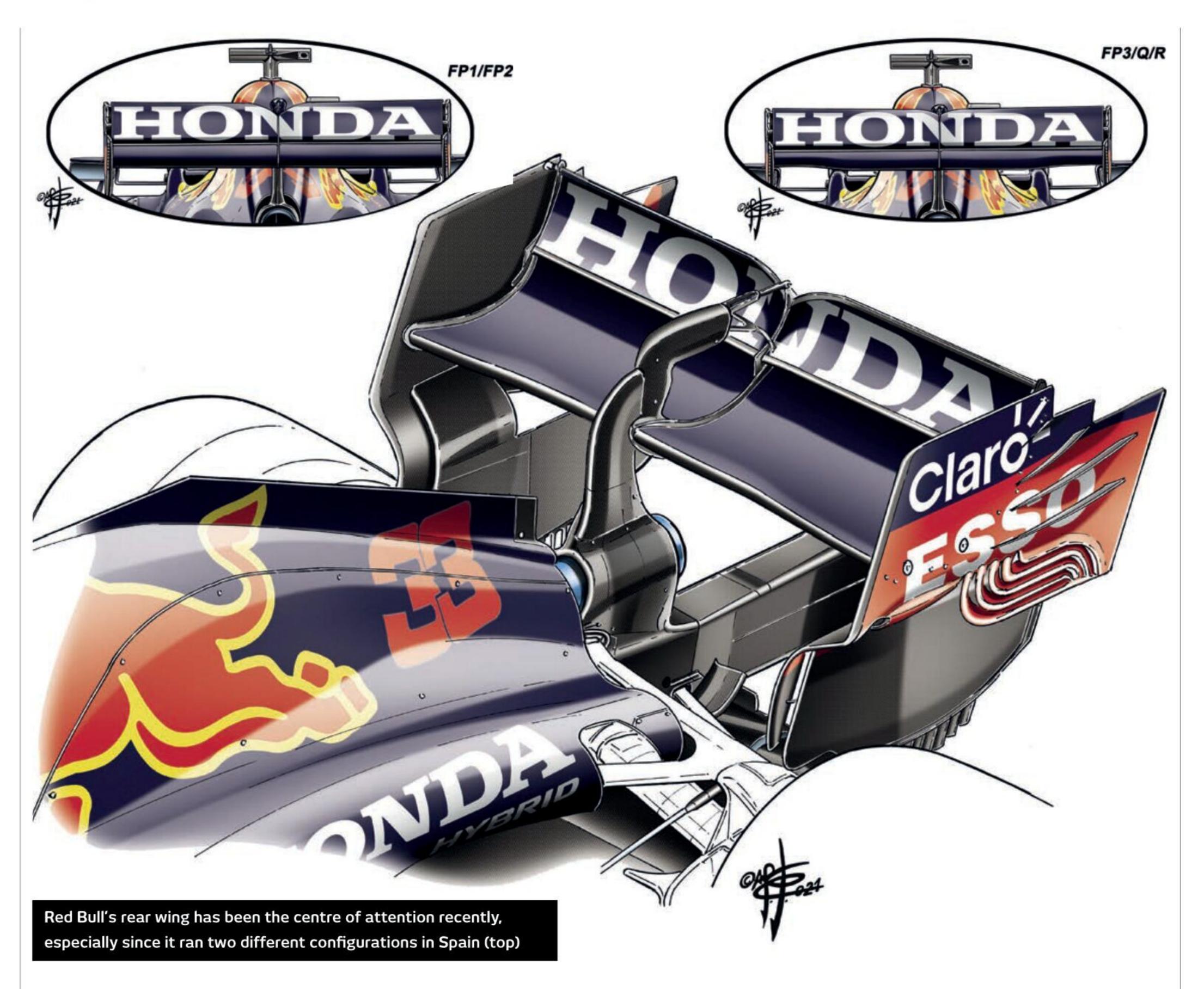






MAGNECOR 'LEAD' WHERE OTHERS FOLLOW





the flap gap to achieve an effect akin to the DRS (although of course of a much lower magnitude) then, if all tests can be passed, such a construction is legal. If a mechanism of preloaded springs or suchlike is built into the wing support pylon with the sole intention to provide resistance up to a certain speed and then back off the wing's angle of attack, such a device could not be deemed legal.

The ability of finite element analysis of composite structures these days makes it much easier to achieve lay-ups of the fibre materials to get just the right amount of stiffness that the designer requires, and it is the magnitude of this stiffness that is regularly called into question. I don't believe for one minute that any team would risk disqualification by trying to hide a 'defeat device' in their wing assembly.

The advent of high-definition onboard cameras with excellent image stabilisation has made life much easier for the accuser and more difficult for the accused, and

"THE ADVENT OF HIGH-DEFINITION ONBOARD CAMERAS WITH EXCELLENT IMAGE STABILISATION HAS MADE LIFE MUCH EASIER FOR THE ACCUSER AND MORE DIFFICULT FOR THE ACCUSED"

the latest requirement from the FIA to put visual targets on the wings makes measurements from video footage much easier. I remember from my time at Renault being embarrassed by a bodywork flick that had gross and completely unintended flexibility at speed which was only seen when a rearward facing camera was used several races into the season. Naturally, the other teams complained to the FIA and we were told to fix it – which we

gladly did as it was detracting from, rather than enhancing, our performance.

The 2021 flexibility arguments are nothing new and nor will they be the last that we see in F1, but ever more sophisticated image recognition software and increased physical testing should stay ahead of stress analysis software, and the devious yet completely legal minds that always seek to find the smallest of incremental advantages.



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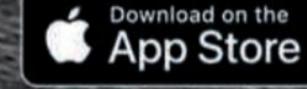
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Essential guide to the business of F1



The TV audiences are looking good too. F1's social media numbers continue to rise and the *Drive to Survive* documentary series is engaging audiences in a way Formula 1 has not known or seen before. Everyone I speak to seems to mention it, particularly in America. God Bless Netflix.

Enter Ariel Kelman, Chief Marketing Officer of technology giant Oracle, recently announced as a new partner for Red Bull. "I think this Netflix series has had a massive impact on getting Americans excited about the sport," he told Reuters, adding, "and then of course for the American corporations to get involved."

Co-founded by Larry Ellison, Oracle is the kind of partner every team principal dreams of. Its 2020 revenues amounted to USD\$39 billion. Ellison likes sport, and Formula 1 offers the perfect showcase for his company's technologies. In this case the machine learning and data analytics capabilities of Oracle Cloud Infrastructure.

Before you drift off, it's worth nothing that Oracle is just part of an influx of new sponsors and suppliers, the information technology sector leading the charge. Of the 240 companies now supporting

Formula 1's teams, one in six is either a hardware, software or IT services business.

They range from cyber security and antivirus company Kaspersky, which has been with Ferrari for over a decade, to Cognizant, Aston Martin's title sponsor. It promises to bring its expertise in artificial intelligence, the Internet of Things, cloud computing and digital engineering.

The descriptions may be long, but their pockets are deep, and the fact Formula 1 is triggering such interest is only positive. Considering we are still in the grip of a global pandemic, the raft of new deals is encouraging. Liberty Media's corporate governance has played its part, along with increased transparency and a collaborative relationship with the teams and the FIA.

If deals won races, McLaren would lead the world championship, Zak Brown having presided over the commercial rebirth of a team that appeared bereft of sponsors a mere four years ago. The long-term deals which were the hallmark of the Ron Dennis era were gone – TAG Heuer and ExxonMobil to Red Bull, Hugo Boss to Formula E.

McLaren now has over 40 partners, including companies such as BAT, Coca-Cola and Dell. The day of the big title sponsor might be over, but such a wide portfolio of backers avoids the pitfalls of having all the eggs in one basket.

Formula 1 has not looked this healthy for quite some time.

FINALLY MOVING IN THE RIGHT DIRECTION

It is worth pausing to reflect on the healthy state in which Formula 1 finds itself. COVID-induced calendar chaos aside, things are good.

We have two key protagonists, Red Bull and Mercedes, giving us the Hamilton versus Verstappen duel we've been looking forward to since forever – a Schumacher/Häkkinen battle with more closely matched cars; Senna and Prost without the nasty civil war.

Behind we find a resurgent Ferrari, its engine embarrassment sliding into obscurity, while the Scuderia's old rival in Woking is in danger of causing an upset or two. Even over at midfield sports notables Alpine and Aston Martin, their world champion drivers are giving us plenty to speculate about. Meanwhile, in Grove, Williams awakens from its long slumber.

The teams are running to a cost cap and the prize money is more equally distributed. The regulations have mixed things up a bit and 2022 promises a hard reset, which everyone is looking forward to.

At least until the unintended consequences set in...



The Hamilton and Verstappen headto-head (top), added to an uptick in Ferrari's competitiveness (middle) and McLaren's sponsorship blitz (bottom), are signs that F1 is in rude health



IN CONVERSATION WITH

INTERVIEW STUART CODLING, JONATHAN NOBLE, LUKE SMITH PORTRAIT MOTORSPORT IMAGES

ROB SMEDLEY

The former Jordan, Ferrari and Williams engineer explains his role in Formula 1's partnership with Amazon Web Services, creating the ever-expanding range of performance and strategy graphics which accompany Formula 1 broadcasts

How useful is it to break down the complexity of Formula 1, telling the story to fans easily, and what feedback have you had from fans about those graphics?

We often have to ask ourselves when we're making these graphics, "Is this just information that interests somebody like me and colleagues of mine on the F1 pitwall, or is this stuff the fans are going to want?" You've got to listen to fans... listen to what the customer wants and then work back from there.

Some stuff we were sceptical about, such as the corner-analysis one, showing the speed trace and how two drivers approach. In fact, the feedback on that just went off the scale. People absolutely loved it. And it had been a little bit the same with the braking one as well. Maybe you [as a viewer] don't understand the physics of it, but you can properly start to appreciate what gladiators Formula 1 drivers are.

What are the processes you go through from getting the data and then deciding how it becomes a graphic?

We come up with a shortlist of between five and seven new graphics per year. My role is to bring that knowledge and know-how of engineering and data, and the technical and sporting aspect, of how F1 kind of knits altogether. We do a bit of a brain dump – me and other technical people in Formula 1 – and say wouldn't it be great if, for example, we had this which we used to look at on the pitwall, or that's a really key bit of information which is mega-important.

Then the TV production people get involved.

They may have a different slant on it as we approach it as engineers. If I look at the graphics, they are nowhere near as complex as you would get on the pitwall. So you need that layman view

of what the story is. Then we come together with AWS [Amazon Web Services] to reach the shortlist for the new graphics.

And then you get into the technical process. Essentially that's my team, all ex-F1 team people like me, who have that sporting and technical knowledge, coming together with the data scientists from the AWS machine learning solutions labs. We build out all the mathematical and physical models, which have the machine learning algorithms. It's the same process as in an F1 team – we'll do loads of iterations of it where we correlate either back to real life or to the simulation environment.

It's easy for people at home to be cynical about how accurate the graphics are – is there a credibility gap to be bridged there? How far apart is your data from what the teams are getting?

The data set we have here is really rich. We [FOM] have got 25 to 35 [timing] loops, depending on the track length, and you can glean a lot of information through that. Teams are able to take a lot of competitor analytics from just three sectors. Twenty-five loops is an order of magnitude more information.

Like all data you've got to know how to use it.

It's not a case of "I've got more data therefore
I'm better." That's where the partnership with

"I STARTED GETTING QUITE A FEW MESSAGES FROM MATES IN TEAMS SAYING, 'HOW DID YOU DO THAT?" AWS comes in. You need that big data analytics and the machine learning element to bump you up to the next level.

So from a certain point of view, we've got more data. The car data is interesting, because you've got less [granular performance] data than the teams. We take a subset of the data off the car, and it's essentially the subset you see on the TV graphics: lateral acceleration, longitudinal acceleration, etc. That's driven us to build out some interesting car modelling techniques.

It was quite interesting, because when we first started this, there were a lot of comments:
"How can they say that? Come on!" But then
I started getting quite a few messages from mates in teams saying, "How did you do that? Because we've looked back on it, and it's pretty accurate.

Are there great ideas you've had for graphics that haven't worked when you tried implementing it? Or ones that aren't possible to do because they're too complicated?

Quite often, when we first do the "show and tell", we have to come back with modifications because they're overly complex. It's been a real eye-opener for me, because as an engineer on the pitwall you're always trying to absorb as much as you can – you want as many noughts and ones as you can possibly get. And it's nice to see a different point of view on that – the editorial point of view, if you like, which is to say, "that's never going to work, people aren't going to understand it".

So rather than trying to give 10 pieces of information that you've got to use, 20 years of experience to knit those together and come out with the right answer, we use machine learning techniques to try to get down to a much more elegant solution.

1952-2021

A visionary figure who was a key driving force behind McLaren's renaissance in the 1980s

Great sadness fell upon motorsport when Mansour Ojjeh died in Geneva at the age of 68 on the morning of the recent Azerbaijan GP. He was the quiet tower of strength who had no need of the spotlight and stood alongside partner Ron Dennis at McLaren as they changed the face of Formula 1.

Born to a Syrian father who emigrated to France during World War II and a French mother, Mansour was raised in Paris where he attended the American School before going to California in 1970 to study business administration.

In the intervening years Mansour's father Akram, who had been the publisher of *Le Monde Arabe* in Paris, had become a business agent for Saudi Arabia's royal family and taken Saudi citizenship. By the 1970s he was Saudi defence minister Prince Sultan's favoured middle man, and won significant commissions on contracts to supply arms, aircraft and other essential items. In 1974 he created the Techniques d'Avant Garde (TAG) company to develop the technologies. Akram's well-educated son joined him in the middle of the decade.

Mansour discovered motor racing at the age of 25 when he was invited to attend the Monaco GP in 1978 as a guest of the Saudi royal family who owned Saudia Airlines, the primary sponsor of Frank Williams's revived F1 team. This ignited a passion, and TAG became a key sponsor of the team for 1979. That coincided with the arrival of Patrick Head's ground-effect FW07 with which Clay Regazzoni scored the team's first victory, at Silverstone. Alan Jones won four more, laying the foundation for drivers' and constructors' world championships in 1980. Williams took constructors' honours again in 1981, and the drivers' title with Keke Rosberg in 1982.

McLaren, meanwhile, had been regrouping fast after
Marlboro had put Ron Dennis in charge in 1980. But even
as John Watson scored McLaren's first victory since 1977
in John Barnard's revolutionary MP4/1 at the 1981 British
GP, Dennis knew a turbo engine would be essential. After
approaching Porsche to create a bespoke V6, he attracted
TAG sponsorship to finance the deal as Ojjeh shared his vision
to make McLaren the best. They set up TAG Turbo Engines
and, to Ron and John Barnard's chagrin after Niki Lauda
pulled a fast one with Marlboro, the engine had to be raced
earlier than they had wanted – in the 1983 Dutch GP in the
prototype MP4/1E. By 1984 the enforced public development



Ojjeh (centre) with Lauda (right) and McLaren's Charlie Crichton-Stuart in 1984



work paid off handsomely, however, as Lauda and Alain Prost won 12 of the 16 races, and Lauda pipped Prost to the title by half a point. McLaren won again in 1985 and 1986 with Prost, before the switch to Honda for 1988 set the stage for further domination with the Frenchman and Ayrton Senna. Later, with Mercedes power, McLaren won

further titles with Mika Häkkinen and then Lewis Hamilton.

Mansour had become the majority shareholder in TAG McLaren Holdings in 1984, and he and Dennis established an unbeatable modus operandi of always voting together. As they maintained full control, McLaren flourished. Ojjeh was one of the driving forces behind the creation of Gordon Murray's F1 road car, TAG Electronics and McLaren Automotive.

A quiet, generous and caring man of innate humility,
Mansour understood the gift of inspiring, empowering and
supporting people, then trusting them to fulfil their potential.
Away from racing, he led the family business down fresh
avenues as it turned the long-established Heuer company into
the TAG Heuer global brand. Later came TAG Aviation which
distributed Bombardier's Canadair Challenger twin-engined
executive jets, interests in hotels and real estate, and the TAG
Aviation executive jets charter business.

As Ojjeh was first struck by the idiopathic pulmonary fibrosis (IPF) disease which required a double lung transplant in 2013, his relationship with Dennis began to break down. Fanciful rumours abounded, but most credible was that Ojjeh objected to the discussions his younger brothers had with Dennis over the future of his stake in McLaren, while he was fighting for his life. The relationship had already been weakened when Mansour and Ron had disagreed about the Bahrain GP in 2011; Mansour was said to be in favour of it being held, whereas Ron disagreed that going ahead was apposite because of the political tensions. At the end of 2016 the unthinkable happened as Mansour and the other McLaren partners voted to buy Ron out of the business he and Ojjeh had turned into one of the greatest race teams of all time.

Mansour recovered slowly, and made periodic visits to races. But though he was instrumental in engaging Daniel Ricciardo, and son Sultan took over as a McLaren director and board member, he knew he was living on borrowed time.

Current McLaren CEO Zak Brown said: "Mansour was probably the best human being I've ever come across. No one will have anything other than great things to say about him. I've never met someone who didn't think he was an unbelievable individual. I understand why now, having worked for him. McLaren was his family. And everyone at McLaren was family."

Hamilton said: "He was a big brother to me. He had the biggest heart and always carried the biggest smile. He fought for so many years with such courage and the heart of a lion. I am so grateful to have known such a man. I will miss his jokes, and his big hugs. This man loved unconditionally."

Much-loved can be an over-used description, but in Mansour Ojjeh's case it is both apposite and accurate.







THE MINDSET OF A CHAMPION



Lewis Hamilton has swept all before him in recent seasons, becoming F1's most successful driver ever. But building himself into the ultimate grand prix winning machine wasn't the work of a moment...

WORDS BEN ANDERSON PICTURES MERCEDES & MOTORSPORT



his might be the toughest

test Lewis Hamilton has faced in Formula 1 for some time. How to win a fifth consecutive world championship, which would make a record eight in total, against a resurgent Red Bull team

resolutely focused on denying him the satisfaction?

Max Verstappen is super quick, hungry and bang in form. The RB16B is fast, consistent, reliable – exactly the sort of tool Verstappen has longed for. Conversely, Mercedes' W12 sometimes looks a bit wayward, unstable and difficult to tame. Certainly, it's nowhere near as dominant as its predecessor.

After a strong run of early races: victory from behind in Bahrain, recovering brilliantly to second at Imola, winning from behind (again) in Portugal and again (comfortably) in Spain, Hamilton suddenly has his hands full. Either the tyres aren't warming up properly, or they're degrading too quickly; Hamilton's flicking switches he shouldn't and losing races because of it; Mercedes is making strategic errors and conceding victories that are there for the taking.

Red Bull is in the ascendent, and Mercedes – that giant, dominant winning machine of seven seasons and counting – is creaking. Valtteri Bottas looks all at sea. He sounds angry too, as he watches his dreams (and perhaps his Mercedes career) slip away. Toto Wolff looks pensive, struggling to compute the fact his usually well-oiled machine isn't humming its usual harmonious tune.

Hamilton looks... well... relaxed...

There are no public histrionics, no social media shaming, no 'it's them not me to blame' snide remarks – though he came close in Monaco, it must be said. Generally, Hamilton stays cool, calm and collected – even when emotions and adrenalin are running high right after the race. He remains resolutely focused on what's gone wrong, how mistakes can be rectified, the car improved, the next race maximised.

It wasn't always like this. Even as a triple world champion Hamilton sometimes struggled to process the injustices of motor racing's cruel twists of fate and luck. He's had to learn, through painful experience, how to mould himself into a relentless machine that will not let up until the final chequered flag has fallen.

LOYALTY BONUS

Hamilton's extraordinary levels of success are undoubtedly a function of the fact he has driven some of F1's best cars. Every one of the McLarens he drove from 2007-12 was a winner, so too the Mercedes of 2013 to present day.

But Hamilton's loyalty has also propelled him forward: Lewis has only driven for two teams and one engine manufacturer his entire career, which now spans 15 seasons. As former McLaren and Mercedes technical director Paddy Lowe points out, this creates a stability that helps the people around Lewis thrive.

"Lewis is a fantastic driver," says Lowe,
"one of the best. I think one of the reasons his
records are so strong is that he's actually been
so consistent and dedicated and loyal. He's
not a troublemaker."

This aspect of Hamilton's character seems analogous to modern professional football club management, which tends to operate a revolving door policy – usually without success. There are exceptions, but generally the most consistently successful teams generate that success by sticking with a manager through thick and thin, allowing their ideas to penetrate properly.

Committing for the long-term helps build and solidify the relationships necessary for success, even when inevitable curveballs are thrown.

Lewis has experienced plenty of them: being team-mate to Fernando Alonso as a rookie; 'Spygate' (the 2007 design-sharing scandal for







Some of the distractions overcome by Hamilton include having Alonso as his team-mate in 2007 (top), his Monaco Maldonado 'joke' in 2011 (middle) and the Nico Rosberg years (bottom)

which McLaren was fined \$100m by the FIA); 'Liegate' (when Lewis was instructed to tell the 2009 Australian GP stewards fibs about how he'd overtaken Jarno Trulli's Toyota behind the Safety Car); 'Ali G- gate' (when he made a poor joke about the real reasons Monaco GP stewards penalised him for ramming Pastor Maldonado in 2011); and Nico Rosberg, circa 2014-16...

Hamilton has dealt with a fair few destabilising elements – and added one or two himself – in his time, but he's generally not made a habit of blowing up the people around him, or turning his back on them. Loyalty engenders trust, which is a massive bedrock for success.

FULL FOCUS

The need to remain fixated on the task at hand and not become distracted by superfluous events is something that typifies modern-day Lewis Hamilton. He showed a propensity for this in the way he handled the extraordinary circumstances of 2007, not allowing Alonso's fury at Ron Dennis, or the events of Spygate, to become distractions, as Lewis went about producing the greatest rookie F1 season ever, which almost culminated in a world championship.

"It was a complicated year," recalls Lowe.

"The only thing that was directly affecting him was his team-mate. People always think there's lots of stuff between team-mates, but what you observe in and around the garage and meetings, they just ignore each other to a large extent.

But they do that normally.

"I mean, we've had this sort of Lando/Sainz thing, but that's really, really rare. They normally just don't hang out, they don't really talk to each other, except perhaps across the table in a meeting about something to do with what the car did – but you normally have to pull that out of them. Generally, they keep their distance, so when there's some friction, you don't really notice much difference, to be honest.

"But as I observed Lewis within that year [2007], he didn't really get stuck into any of it. He just ignored it all and got on with his driving."

This wasn't always the case in Hamilton's McLaren career. He later became preoccupied by things that perhaps detracted from his on-track performance. The inevitable fame and fortune that came with his meteoric rise to the very top of Formula 1 was clearly challenging for a young man to deal with while growing up under the glare of the public spotlight. It has taken Lewis, as it does most people, a great deal of time and personal growth to achieve the correct balance.

"One of his features back then was, you know, not always focused," confirms Lowe. "And that came more to the fore after the first year, when life starts to become more complicated. It's just an inevitable part of it.

"ONE OF THE THINGS LEWIS HAS LEARNED IN LIFE LATER ON, IN THE LAST FEW YEARS, IS 110% FOCUS. AND YOU SEE NOW HE TURNS UP TO EVERY RACE ABSOLUTELY ON IT" PADDY LOWE





I think one of the things Lewis has learned in life later on, in the last few years, is 110% focus. And you see now he turns up to every race absolutely on it. And we all know that wasn't the case throughout his career."

TRUSTING INSTINCT

Hamilton's propensity for being exceptional in wheel-to-wheel battle is legendary. This part of the craft can't really be taught, only refined with experience. There is an instinct to the art of racing that is deeply personal to the individual. Certain limits and rules are obviously imposed and generally understood by all, but there also exists an unwritten law of the jungle, which can only be intuited as you take risks and are rewarded or punished in kind.

When everyone is fighting over the same piece of track, to a certain extent you simply take a deep breath and dive right in. Some drivers find this comes naturally, and Hamilton is one of those. Others, like his former archrival Nico Rosberg, find it more difficult to know where the limit is. Some have even been known to need diagrams drawn for them, to help explain where to place the car in order to claim a particular corner is 'theirs' in wheel-to-wheel contests.

This is trying to make the art of racing scientific, but it doesn't really work that way. In a sport of science, measurement and instrumentation, this is where instinct, flair and spur-of-the-moment judgement take over. This buys Hamilton a certain amount of prior credit when it comes to internecine warfare. He's nearly always in the right, so when conflict does arise he usually just has to go through the motions with the team and let it get sorted out, without worrying too much about the need to adjust his own technique.

Early in his career, Hamilton had plenty of scrapes and collisions – with Felipe Massa,
Jenson Button, even Maldonado – that cost him dearly. The odd one recently with Alex Albon too, but the examples are now vanishingly rare. He's refined his own judgement over time, and you hardly ever see him collide with other drivers.

When he does get too close, as has happened a couple of times with Verstappen this season,
Lews is careful to look at the bigger picture and ensure he lives to fight on.

"The bottom line is Lewis is an extremely talented racer," says Lowe. "He knows every centimetre of track that he's allowed to be on and how to play it. A lot of this stuff is



very, very difficult to capture analytically – it's something you have a sense for. For example, if you try and overtake around the outside, that's your risk. In all of that really, Lewis is [generally] faultless. He's so good at racing and car positioning and placement."

WORK, WORK, WORK

Generating a work ethic that means you avoid simply relying on your innate ability to drive the car, while improving the support network around you so performance itself becomes easier to access, thus generating spare capacity to work





on things tangential but beneficial to the process of driving, is another facet of what separates the great from the very good.

Some drivers never entirely buy into this process; some become exhausted by it; others, like Lewis, take time and the painful lessons of bitter experience to realise the benefits fully. As Lowe says, the Hamilton we see today is "110%" focused on maximising every race as it comes, leaving no stone unturned in pursuit of perfection. When Red Bull dishes out painful defeats, as has happened a few times already this year, Lewis immediately sets his mind to the work of hitting back.

Even when races slip through his fingers, as the French GP did after Mercedes' strategic miscalculations helped Verstappen to victory, Hamilton shows equanimity in defeat, taking solace from the fact he has given his all. On the few occasions he falls short of his own high Hamilton's mature response to the challenge of Max Verstappen this season has its roots in his defeat by Nico Rosberg back in 2016

standards, he is quick to apologise rather than appear beyond reproach. This is the maturity and mental strength of a true champion on display – and like many revelations, it has its roots in the experience of a bitter setback.

Hamilton almost lost the plot when Rosberg beat him to the 2016 world title. He became sullen, stroppy and even intimated he wasn't getting a fair deal from Mercedes given how disproportionately he suffered from engine failures. Many of the perceived injustices Hamilton experienced actually came from an unfortunate spiral of negative consequences, but it didn't feel like that to him at the time. It got him down and he didn't bring everything he had to the table until it was too late.

Lowe says this season was "the final piece of the jigsaw" in making Hamilton the driver you see today – someone who tries to extract the maximum from every single race, focuses utterly on the job at hand, and his since become a relentless winning machine: Britain's best F1 driver ever, and maybe F1's greatest of all time.

"When Nico beat him in 2016, he realised he couldn't leave any races on the table," Lowe explains. "And he had done so up to that point in his career. Because he, like many of these drivers that have supreme talent, they've got supreme self-belief, and the other side of that coin is that they sometimes think 'well, I'm so good it doesn't really matter what I do, it will come through'.

"2016 was a turning point when he switched into 'Yeah, I can't completely rely on my talent; I've got to leave nothing to chance'. That's what he's done. 2016 made him into an unbeatable force, which we're seeing playing out still."





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Lando Norris is a king of online racing – and, increasingly, making his mark in the 'real' his progress towards becoming one of





SOME DRIVERS ARRIVE in Formula 1

McLAREN AND SHUTTERSTOCK

thrillingly complete. Others are still on what's known in modern media-saturated parlance as "the journey". For every Lewis Hamilton podium finisher in his first grand prix, polesitter and winner of his sixth - there are dozens of other slower-burning talents who had to feel their way carefully towards becoming the finished article.

Lando Norris is perhaps one such. Aged 19 when he made his F1 debut at the 2019 Australian Grand Prix, he was by no means the first teenager to break into motor racing's top echelon. But there were those who interpreted his boyish swagger and fondness for japery as an inherent lack of seriousness - for certain eminences grise within the paddock, a cardinal and career-limiting sin. The truth was anything but: as he's revealed recently, beneath the veneer of effervescent good humour he was quietly undergoing a crisis of confidence and went into every grand prix weekend plagued by self-doubt.

He's done much to dispel those fears, claiming a first podium finish with a buccaneering drive at last year's season opener, and emerging as one of this season's feistiest contenders among the midfield teams - to the extent that McLaren is realistically targeting third place in the constructors' championship ahead of a resurgent Ferrari. This could be the closest McLarenvs-Ferrari fight since 2008 and Norris, with a freshly minted contract renewal in his pocket, is right at the heart of it.

"Coming into the season, even the test before the Bahrain GP, I was just a lot more confident in myself," Norris tells *GP Racing*. "I knew what I wanted to get out of every session. And I guess in the first year, there's just so many things to think of, it's hard to go, 'OK, this session all I'm going to focus on is that'. Sometimes you can, but in the back of your head, there's a lot of other things you've got to be thinking about. Now, a lot of things just come more naturally. And I can just focus more specifically on single areas and really try to nail that area, and then once I've done that I can move on to the next one.

"That definitely helps the confidence. And I'm almost more excited going into every race weekend, because I feel like I'm doing a better job than ever, and we're getting better results, which always makes it more exciting. And I feel like there's more opportunities every weekend for me to try something different, to do that next step which makes me a better driver. Definitely a big difference from year one."

Experience seems to have been the key to this improvement in mind-management. McLaren team principal Andreas Seidl speaks of Norris as a work in progress, one who in a few years

Norris started 2021
brimming with confidence
and has been one of the



93%

"will have everything a top Formula 1 driver needs". He praises Norris's improved application during race weekends, both behind the scenes and in the car, as well as his capacity to analyse – along with his engineering team – previous performances to evolve his approach.

As a result, reckons Seidl, Norris has a clearer picture of what's required in the preparatory track sessions, is sharper on what has to be done and when during qualifying, and is increasingly precise in race starts and during opening laps, as well as having an awareness of the bigger picture around him as a grand prix evolves. Perhaps most importantly, these sharpened elements of the craft are registering on the timesheets. For a handful of seconds during qualifying for the Emilia Romagna Grand Prix at Imola back in April, Norris was third quickest until has time was scrubbed because he slid 3cm beyond the track limits at Piratella. He excoriated himself on live television afterwards but managed to claim a second career podium in the race, albeit with some assistance from other podium contenders eliminating themselves and

"I'M ALMOST MORE EXCITED GOING INTO EVERY RACE WEEKEND, BECAUSE I FEEL LIKE I'M DOING A BETTER JOB THAN EVER, AND WE'RE GETTING BETTER RESULTS, WHICH ALWAYS MAKES IT MORE EXCITING"

McLaren's strategists making an adventurous tyre call during the resulting stoppage.

"The most obvious thing for me is the lap times he's putting in consistently, which is the most important thing for me," said Seidl at the time. "As I've said many times, if these lap times don't come I can't fix it. It's got to come from these guys. And these times are the result of the hard work he's done with our engineering team to learn from his second season in Formula 1 last year, digesting it in the right way, making the right conclusions and coming back this year in a position to make the next step. And I can clearly see also in terms of personality and character he's made the next step."

"I've spent more time than ever," says Norris,

"in terms of preparation and everything, for every race weekend: on the simulator in the factory, sitting down with the engineers before and after every session. It's not about the effort level, because I think I've always put as much effort in as I can, it's just more dedication and time put into everything. It's that, coupled with more experience coming for my third year, refreshed over the winter, reviewing everything from last season and just coming back and having another crack at it.

"I don't think there's loads of different things
I've changed. I'm still the same guy, trying just
as hard as I was before, but with some more
experience, some more knowledge, and better
ideas about what works for me and what doesn't





in terms of setting up the car and so on. It's just been about putting that together, really.

"Some of the tracks we've gone to this season, such as Baku and Monaco, it was my second time there in Formula 1, although it's my third season — and I could tell the difference from two years ago, when they were just my fourth and sixth F1 races. The difference is huge. You know, going to Monaco for your first time in F1 is pretty scary, you don't know what to expect; this time I came into it with a much better idea of what I wanted to accomplish in FP1 and FP2, putting the pieces of the puzzle together ahead of qualifying and the race."

There abides a lingering perception among some Formula 1 commentators that qualifying is one of Norris's weaker suits, a belief which simply doesn't stand up to serious examination. He was pretty much even with Carlos Sainz in his first two years and has had the measure of new team-mate Daniel Ricciardo while the Australian has battled to adapt his technique to suit the car. Perhaps Lando's tendency post-session to own up to and flagellate himself for any mistakes has fed the narrative.

This season Norris has unquestionably been getting the business done on Saturday afternoons in a car which has required both drivers to adapt



Despite Monaco not favouring the MCL35M, Norris qualified fifth and claimed his second podium of the season

their driving styles. McLaren's MCL35M might be a sequel but it's a very different car to drive than the MCL35. Faster down the straights thanks to a (new for this year) Mercedes engine, coupled to an aero map which is less draggy for given levels of downforce than its closest rivals, the McLaren is also strong in high-speed corners.

Slow-corner performance was a limiting factor early on, a consequence of running a slightly longer wheelbase than the likes of Ferrari, Red Bull and AlphaTauri. As with the long-wheelbase Mercedes, the MCL35M is naturally a little more reluctant to rotate towards the apex of such corners. Confident that it can take the fight for third in the championship to Ferrari, McLaren has ploughed resources into addressing these shortcomings through a series of updates in Portugal, Spain and Monaco, centring around a new front wing and revised floor.

Like several other teams, McLaren has had to combat handling imbalances brought on by the new floor regulations: the rear end is now much more sensitive to sudden changes of load as the car dives under braking. A less aggressive front wing design, combined with detail work around the floor area – McLaren has embraced the fashionable Z-shaped cut-outs at each side – reduces this sensitivity to changes in pitch and makes the car more driveable.

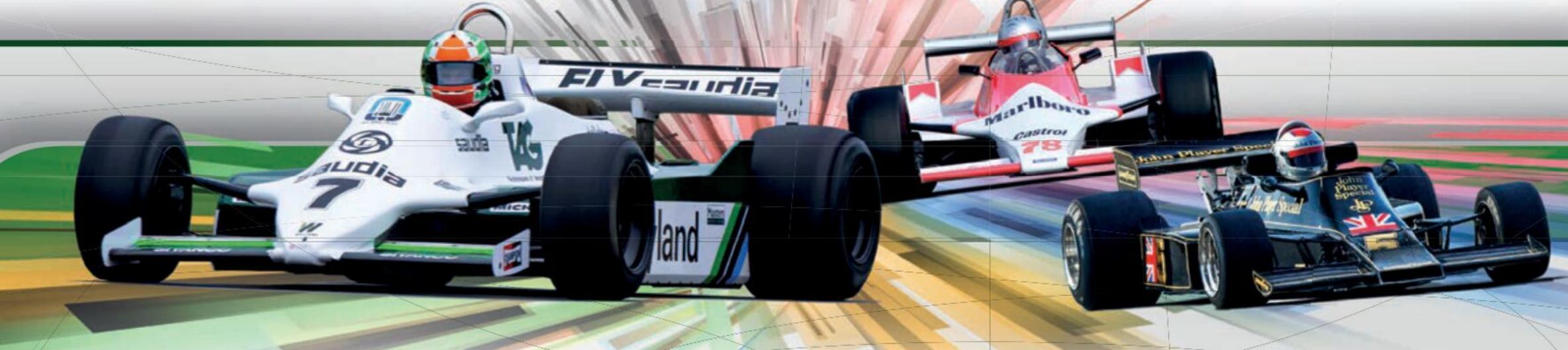
The team's development path will now focus on what Andreas Seidl describes as "low-hanging fruit" ahead of a complete switch to 2022 development – so Norris and Ricciardo will have to work with what they've got.

All of that makes Norris's performance in Monaco all the more remarkable: on a track unsuited to the McLaren's performance envelope, he qualified fifth overall – just 0.274s off Charles Leclerc's polesitting Ferrari and 0.044s off second-placed Max Verstappen's Red Bull. Significantly, Ricciardo – a driver famed not only for late braking, but also for his aptitude in manipulating braking effort to persuade a car to turn-in faster – failed to progress from Q2. Norris obviously has a well-developed feel for how to modulate the pedal while trail-braking



Now in his third season in F1, Norris has been able to focus much more on what he needs to get out of each practice session





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the car into slow corners without triggering rear-end instability. So, while it's the points that count, and Norris's podium finish in Monaco was a welcome result on a day Ferrari missed a huge scoring opportunity, even he admitted the result required "a bit of luck". That qualifying time was arguably the more impressive achievement.

More recently Norris finished 'best of the rest' again, fifth in the French GP after what had been a disappointing qualifying for him (P10) and an unusually passive opening lap in which he dropped two places. Handed an adventurous tyre strategy which called upon him to extend his opening stint into the hinterlands of the medium compound's life, he maximised the advantage this gave him in the second half of the race: overtaking both Ferraris, the AlphaTauri of Pierre Gasly, and his own team-mate.

"I'd say I only got on top of last year's car towards the mid-to-end of last year," says Norris. "I was kind of confident coming into this season I would continue that – 'OK, I've got this car nailed and I know what to do'. But it was almost the opposite and that hampered me in the first couple of races of the season, especially Bahrain. I was still trying to drive it too much like last year's car, and that wasn't good. So, I've had to adjust and then I've been able to maximise things again.

"I didn't feel like I did a great job in the first race of the season because I was still too used to last year and trying to drive like that. But then, because of learning so much over the past

"I'D LOVE TO DRIVE AN INDYCAR AT SOME POINT, BUT NOT ANYTIME SOON, TRUTHFULLY, BECAUSE I HAVE A LOT OF FOCUS ON F1 AND I HAVE A LOT TO ACCOMPLISH HERE"

couple of seasons, I've got used to some of the differences and I've been able to focus – on the simulator and in practice sessions – on adapting to this car and understanding how I have to drive it. I feel like I'm doing a much better job – I've had some of my best qualifying sessions, the best race I've ever done. I believe it's down to that.

"It's still not perfect, I don't go out in every session and think that I know exactly how to drive this car to the absolute limit. I'm still trying to figure out some things. It's clearly not easy, because Daniel [Ricciardo] hasn't found it easy. But it doesn't have to be. Sometimes you can have a very quick car that's difficult to drive, even though, as a driver, you always want one that's easy to go quick in. But we've taken a step forward this year, the guys and girls did an excellent job to make some good improvements, and that's shown from the results we've had. But there's plenty more to keep plugging away at and try to improve because we don't have the quickest car yet, and that's what we want."

Three seasons in, Lando Norris has markedly evolved from the driver who arrived in F1 without winning the Formula 2 championship.

Back then he seemed very much in George Russell's shadow; now he's firmly established as a senior driving partner at McLaren and a key figure in that team's future — "an integral part of our recovery plan" as Andreas Seidl puts it. While Russell — who beat Norris to the F2 title in 2018 — has been for the most part less exposed in F1 by driving a tail-end car against weaker team-mates, Norris has had to do his growing up in public, nearer the front of the grid and with sterner opposition in the garage next door.

Having reached this point, Norris isn't going to allow himself to become distracted. Ricciardo has talked about the possibility of leveraging McLaren's connections elsewhere in the motorsport firmament to race at Bathurst or test an IndyCar, both enthusiasms shared by CEO Zak Brown. For Norris it's a definite no for now: "I think I'd love to drive an IndyCar at some point. And then maybe I'd need to test on an oval and see if I have the balls to do that.

"But not anytime soon, truthfully, because I have a lot of focus on F1. It's all I've wanted to do since I was a kid, and I have a lot to accomplish here."





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Forget the ridiculous 'Mr Saturday' tag. There's more to George Russell than impressive qualifying statistics. This thrillingly complete young talent is driving Williams out of the doldrums even as he eyes a future at Mercedes...









The old adage in Formula 1 that the first person you *must* beat is your team-mate may be clichéd, yet it rings true.

Drivers constantly compare themselves with the man across the garage, knowing the importance of becoming the in-house alpha.

It makes qualifying head-to-head records a valued statistic for many drivers. As pallypally as Lando Norris was with Carlos Sainz at McLaren, he took some pleasure in pipping the Spaniard on Saturdays across their two seasons together (11-10 in 2019, 8-8 in 2020). Fernando Alonso's 21-0 whitewash of Stoffel Vandoorne in 2018 meant so much to the two-time world champion that he was still trotting out the statistic 18 months later.

But even Alonso's qualifying prowess looks workmanlike compared with that of George Russell. In his 43 appearances with Williams (at the time of writing, pre-French GP), not once has he been outqualified by a team-mate. He equalled Alonso's 21-0 sweep in 2019, when paired with Robert Kubica — a grand prix winner — and leads Nicholas Latifi 22-0 in their season-and-a-bit together. The only F1 team-mate to ever outqualify Russell is Valtteri Bottas, who pipped him to pole in their single race together at Mercedes — and we all know who really walked away as the moral winner that weekend...

It has led to the moniker of 'Mr Saturday' being attached to Russell by TV types, who then rattle out those statistics like tickets from a slot machine every time he makes it through to Q2. As impressive as his qualifying record is, to reduce his significance to that of a qualiday footnote belies the true power of Britain's

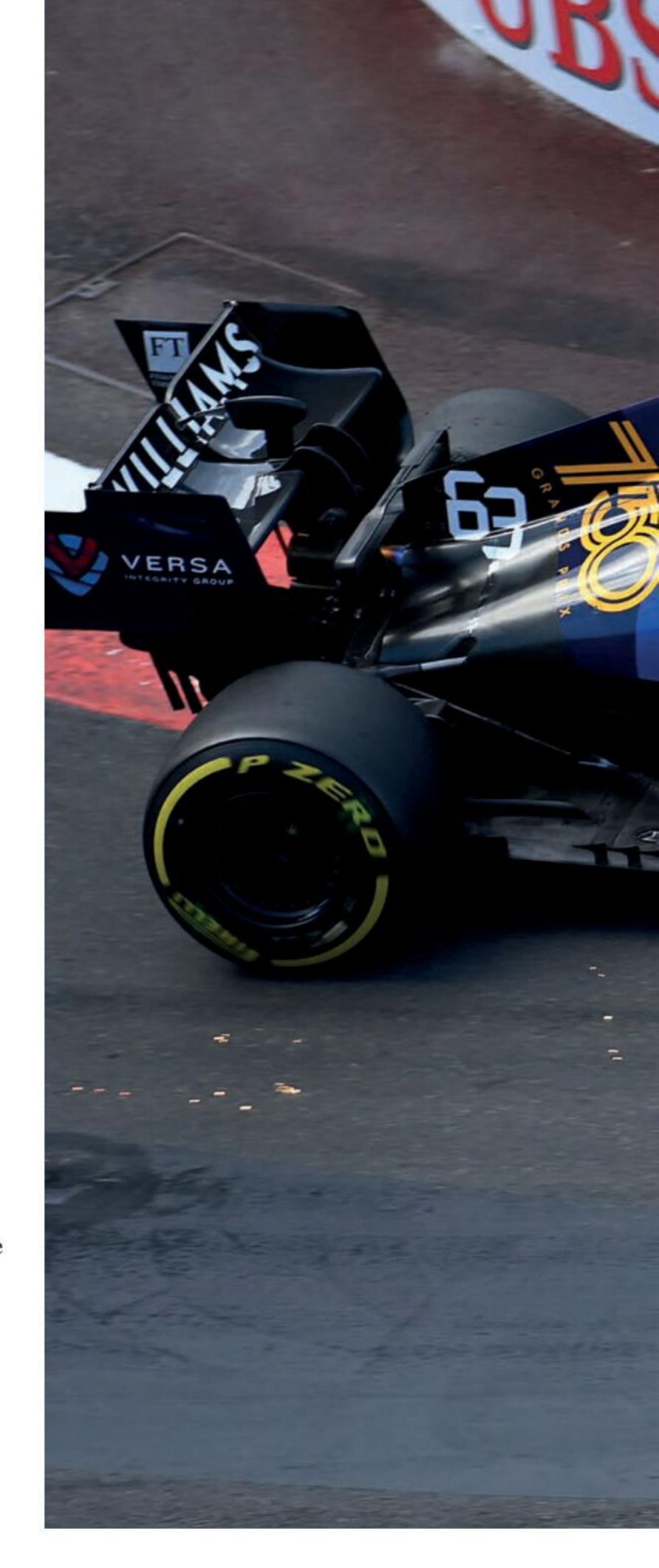
burgeoning F1 star. Last year in Sakhir he offered a glimpse of what he could one day do for Mercedes, jumping in at the last minute and making full use of the tools at his disposal. But to be true world champion material requires a greater contribution: it's being a leader, rallying those around you, and being a figurehead in the team's progression in every area.

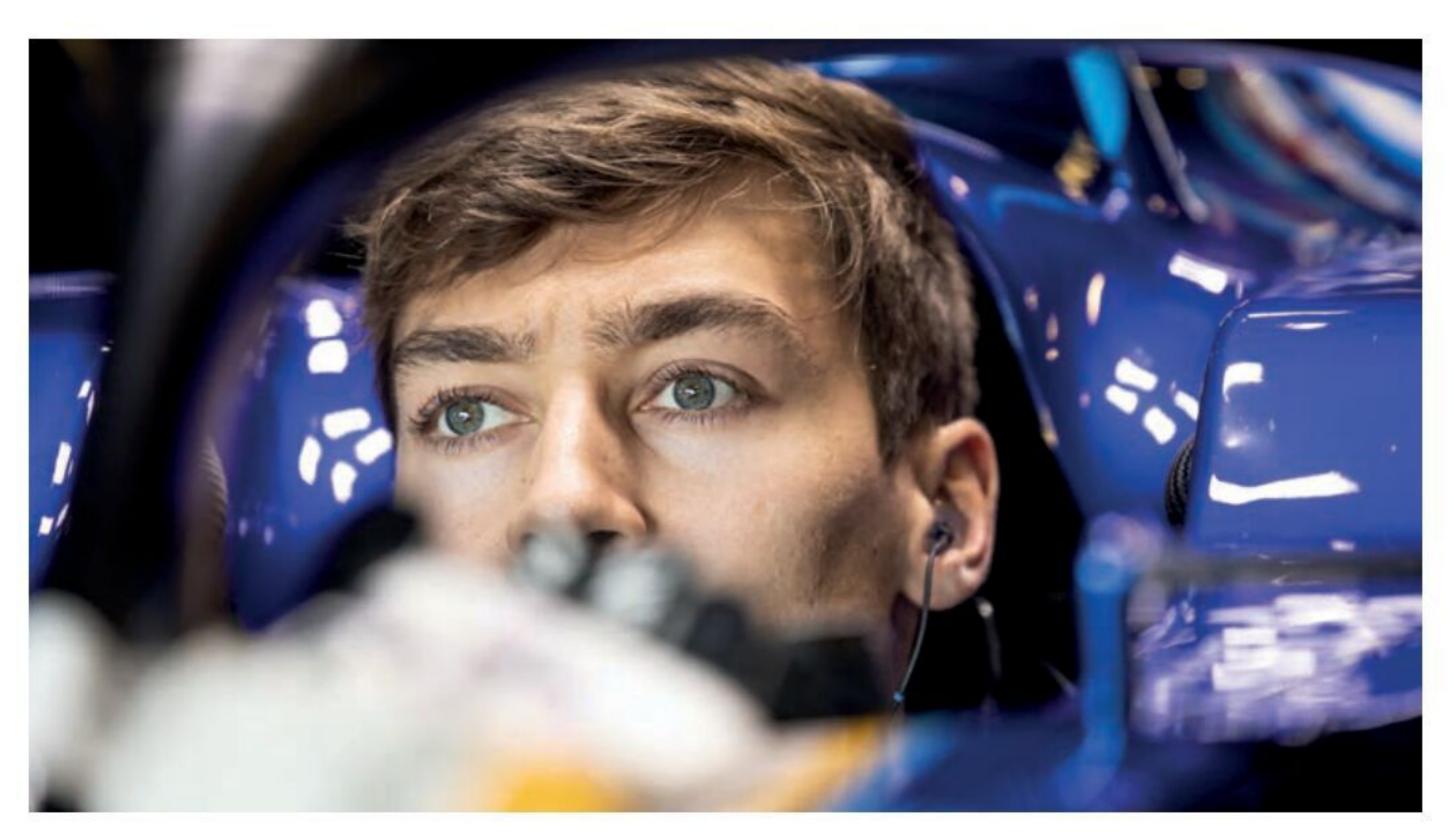
They are valuable skills which those around Russell at Williams have seen him hone since making his debut in 2019. "He's just got better and better, and developed almost with every race," says Dave Robson, Williams' head of vehicle performance. "Not so much in terms of the driving, that's always been very strong. But in terms of his understanding of the whole game that we play and everything that we need to get right and we need his help with, it's just improved endlessly.

"His role within the team is particular, he takes it in his stride in leading that. He's an excellent asset in all regards."

The evolution into a leadership role was something Russell was required to embrace quickly. As the depth of the team's plight became clear in early 2019, there was a contrast in the response of the two drivers: while Kubica – the more experienced, seemingly senior head – subsided into negativity, the junior Russell accepted the state of affairs and got stuck in trying to make a difference.

"2019 was an incredibly difficult baptism of fire," recalls Robson. "Once he'd got his





head around the situation we were in, he was extremely good at being clear about the order of the problems that needed tackling."

Dealing with a car as devilish as the FW42 helped Russell hone his development skills and feedback, helping the team make big strides in each of the past two seasons and move off the foot of the pecking order in 2021. He even gleaned some helpful slivers of information during his one-race sojourn with Mercedes, feeding back to Williams that it should change its clutch paddle designs after sampling a different steering wheel.

The technical understanding he has forged is "right up there" with the best drivers Robson – once a race engineer to Jenson Button and



Felipe Massa – has worked with: "His technical what I can in the data, seeing what he is asking understanding of what the car has to do, how the for from the car, what he thinks the car needs to tyres have to work, and some of the compromises you have to make, is now as good as anyone, I think, in the pitlane."

It has made Russell not only an important asset to his team, but also to his team-mate. Nicholas Latifi joined Williams as a rookie in 2020, and while paired with a younger driver who had just 21 grands prix to his name, he was quickly able to lean on Russell to help his own performances as he got up to speed in F1.

"It's been hugely beneficial to have a teammate like George," Latifi says. "Definitely in those opening races at the beginning of the year and throughout the year, [I was] learning from him

go quicker, when I was just trying to find my feet and get up to the limit – for sure relying a bit on that information was very helpful."

Latifi's confidence may have grown into his second season, but he still finds it a "great help" to have such a strong reference in Russell even when on the wrong side of the qualifying scoreline. "Part of it just stems from having George as your team-mate," Robson says of their head-to-head record. "He does have an incredible ability to pull something out when it really matters."

But it is not just Russell's on-track capabilities that have made him such a powerful and

important figure within Williams. The soft skills he has developed off-track, knowing how to best work with the team around him and keep heads up – even through the trickiest of times – has been hugely important to Williams.

"It's not just his technical input, but also the way he interacts with everyone and his positivity," says Robson. "Although he can, quite understandably, get frustrated in the heat of the moment, his positivity and general way he is so constructive is very good and exactly what we needed over the last couple of years. He's played a big role."

At just 23 years old, Russell has a growing voice and authority that few of his peers





Even if he leaves at the end of 2021, Russell will have played a big role in helping Williams turn around its fortunes since the start of 2019

boast. It has earned him the respect of the entire F1 grid, evidenced by his appointment as the GPDA's newest director at the start of this year following Romain Grosjean's exit from the series, wishing to represent "the younger half of the grid". Internally at Williams, he has also used his eagerness to speak up to good effect, wishing to make himself heard from day one.

"There's something about him: when he talks, people listen," says Robson. "It's important, provided he's talking about the right thing.

Perhaps right at the beginning, he didn't always get [that] right, but it didn't take him long to suss that out and understand."

Robson's comment is another sign of Russell's willingness and ability to learn from his mistakes, a trait that fits perfectly with the culture built by Mercedes in its evolution to a title-winning F1 juggernaut.

It was something that he has already had to put into action this year, having brazenly pointed the finger at Bottas for their crash at Imola and then proposed a theory that had tinfoil hats quivering across the F1 Twittersphere. On the flight home after the race with Mercedes head honchos Toto Wolff and James Allison, Russell said he was given some "tough love", but he acted quickly: he apologised, retracted his comments, and vowed to learn from the saga.

It's exactly the kind of growth Mercedes wants to see, and will undoubtedly be part of its considerations when it decides on Russell's future for 2022. He is a free agent, as are Mercedes incumbents Lewis Hamilton and Valtteri Bottas, the latter being the man he would surely replace should Wolff decide the time is right to cash in on his investment.

But where would that leave Williams? Robson does not mince his words, admitting it would be a "huge loss" for the team both on- and off-track.

"It's been fantastic working with him, right from when we first put him through the evaluation," Robson says. "It was obvious George had something about him, some genuinely outstanding talent to drive the car. And it's been probably frustrating at times, but a great



journey to be on with him.

"Of course he'd be a massive loss. I think we've all put in a lot of time and effort to help him where he needed a bit of help, to guide him, and it would be a real shame to lose that without really seeing the benefits of it in our car."

CEO Jost Capito says he would "of course" hand Russell the multi-year deal he craves from 2022, should it be viable. "I think he would fit very well to Williams for our future as well," Capito says. "If he believes in our future, there might be a chance to keep him."

It is a future that Russell has helped forge for Williams. Steps such as the sale of the team and investment from Dorilton Capital has secured the team's immediate future, but Russell's role must be recognised. Robson agrees, saying he "can take a good amount of credit" for the team's progress since hitting rock bottom at the start of 2019.

Williams may have a strong history for backing and cultivating young talent, giving the likes of Jenson Button, Nico Rosberg, Nico Hülkenberg, and Valtteri Bottas their starts. But to be the force that helps lift the team out of its hardest moments, acting as the catalyst in its revival, arguably makes Russell the most important of the bunch – even if he doesn't stick around to enjoy the fruits of his labour.

"OF COURSE HE'D BE A MASSIVE LOSS. I THINK WE'VE ALL PUT IN A LOT OF TIME AND EFFORT TO HELP HIM WHERE HE NEEDED A BIT OF HELP, TO GUIDE HIM, AND IT WOULD BE A REAL SHAME TO LOSE THAT WITHOUT REALLY SEEING THE BENEFITS OF IT IN OUR CAR" DAVE ROBSON





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THE WALLING GAME

2020 Formula 2 runner-up **Callum llott** could be on his way to becoming the first Briton to contest a grand prix in an Alfa Romeo since Reg Parnell in 1950. But the Ferrari Driver Academy protégé is having to temper his ambition at the moment – outwardly at least...

WORDS OLEG KARPOV PICTURES ALFA ROMEO

PATIENCE.

Callum Ilott needs quite a bit of it. After finishing runner-up in Formula 2 last year, the young Brit was placed on the substitutes' bench at Alfa Romeo. In the meantime, his fellow Ferrari Driver Academy member and the main rival for last year's F2 title, Mick Schumacher, is already racing in F1 for Haas.

Apart from occasional free practice appearances, Ilott's 2021 programme mainly consists of three elements. Those are: waiting, hoping and learning.

"I think I've toned down a little bit now," Callum tells *GP Racing* when asked about working with – and trying to learn as much as possible from – Alfa's F1 engineers. "I had to kind of hold myself back because they've got a job to do on the weekend.

"I went with them to the test in Bahrain, which was really useful. You had time to speak with the other side of the team that wasn't running and to understand a bit more about the programme. That was really useful to get all these questions out the way.

"I am obviously there to learn but, yeah, I try not to distract them as much anymore."

There is also a GT programme on the side. Callum is racing a Ferrari 488 GT3 in the GT World Challenge Europe Endurance Cup, but a full season of that consists of just five race weekends. So, for the rest of the year he is Ferrari's test driver and Alfa Romeo's additional reserve driver next to Robert Kubica, meaning that his chances of actually competing in an F1 race (for now at least) are very slim.

Test driver and additional reserve – not the most desired roles for someone who's been racing for more than half of his life. But his junior career is virtually over, and now it's up to external factors whether or not he makes F1 – hence the requirement for patience.

The lack of that - not from Ilott, but from an Austrian named Helmut Marko - was a



complication for Callum at the start of his single-seater career.

Ilott is one of few drivers to have been part of both Ferrari's and Red Bull's junior programmes. But he'd emerged on Marko's radar at what was possibly the least opportune time – right after Max Verstappen had blazed his path from karting to F1, aged 17, via just a single season of European F3.

Ilott himself was a European champion in karting, and so Marko started him on the same path. Excluding the New Zealand-based Toyota Racing Series in the winter of 2015, Callum virtually went straight from karting to F3.

"I remember it was at Silverstone the year before, 2014, I went there on the [British GP] Friday to have a meeting with him. He asked how old I was," recalls Ilott, who was 15 at the time. "And then he's like 'okay, you're doing F3 with Carlin'. Okay. Sure.

"Obviously Max did it the year before. And, you know, I didn't disagree with it. So I think it was mutual in that sense.

"But yeah, to be honest, I didn't really know what I was being thrown into. Because I'd done well in karting, pre-season testing was going well. So I didn't really realise how tough it would be.

"And of course, I'm not from a racing background. So, you know, 'if you say I can do it, I can do it', go for it."

Ilott finished all 33 of the season's races, but only 11 of those were points finishes, and only one of those was a podium. It wasn't long until Marko lost interest, and at the end of the season Ilott was released by Red Bull, the campaign having apparently proved to Marko that Callum was no Verstappen.

"I don't regret it," says Ilott of his short Red Bull spell. "I think that it's fate at the end of the day. You get put into a position, and you just have to work on it."

In his six years across Formula 3, GP3 and Formula 2, Ilott has raced for seven different teams, beginning each season with a new outfit. It's a remarkable contrast to someone such as Schumacher, whose five main campaigns in junior racing were all with Prema.

"I would have loved to have had a career like, for example, Mick, because you really learn to integrate well with the team. Obviously, if you build a good relationship with your engineer early on you can continue all the way with him.

"But you know, it doesn't always work like that. And again, because I wasn't from a motorsport background family, we had to learn and discover some things ourselves how

motorsport works in a lot of ways."

Ilott's own switch to Prema in 2017 proved to be pivotal for his career, since it led to Callum's first contact with Ferrari. Its former Academy chief Massimo Rivola would come to F3 to check on the progress of Ferrari's now ex-junior Guanyu Zhou, but took note of Zhou's team-mate instead.

"I remember speaking to him in... Pau", recalls Ilott. "I crashed in one of the races when I was leading, and he was just like 'you're so fucking fast, you don't need to even take risks, you just need to relax a little bit'. And then he was like, 'I'd love to have you in FDA, maybe we should talk some time'.

"He showed interest early on that he wanted me on the programme. And obviously to be with Ferrari was a privilege. There's no way I'd say no at all."

By the end-of-year Macau GP, Ilott was already a Ferrari junior. He is now based in Maranello, living in close proximity to the Scuderia's base.

"Red Bull had a lot of success with the junior drivers," he says, "but it was very... you had a personal trainer who went with you, you would be doing a simulator and that. So it was very individual, you had to develop yourself and work like that.

"It works with a few guys, maybe not everyone, because everyone's slightly different. For me, I was probably a little bit young to make the most out of it at the time, and I didn't really fully understand what was needed.

"It's now my third or fourth year living in Maranello. And I enjoy it. I think the programme with Ferrari was always to take time and to build up and learn. And, yeah, I think it's worked out well for me."

Third in GP3 and 11th in his first season in F2, Ilott came into 2020 facing what was probably his last chance to make a case for a promotion to Formula 1.

"I knew at the beginning of the season that if you're winning the championship or you are at the top, that there was always going to be a very high chance that you will get a shot [in F1]," he says. "Obviously, finishing second, yes, it's not winning, but I'd shown the whole way through that I was incredibly quick, and that I had more than enough talent to hopefully progress into it."

It looked at one point as if Ferrari might promote Ilott at the same time as Schumacher.



At the moment llott is having to make do with his occasional Friday outings for Alfa Romeo, on top of his role as a Ferrari test driver



Instead, Antonio Giovinazzi kept his place at Alfa Romeo, and Ilott had to settle for the test role.

"Looking at the positive, it's quite relaxing in a certain way," Ilott says. "I haven't got the stress of a full-blown championship, like I had with F2 every year, F3 every year, where you're fighting for your life. So I'm quite enjoying that side of things just to relax and look at everything and learn in a different environment and in a different way."

Now Callum's future largely depends on what Ferrari plans to do with the Alfa Romeo seat it controls. On the one hand, Giovinazzi remains the main hurdle. On the other, Antonio is maybe the best example of how long Ferrari can bide its time with a protégé. He was runner-up in GP2 in 2016, then spent two years waiting for his chance, having ceded a place to Charles Leclerc in the queue. But now the Italian is already in his third full year in F1.

This year Ilott doesn't have a lot of opportunities to convince Ferrari and Alfa Romeo of his merits for 2022. What he can do is be perfect during the Friday practice runs he does get – but there's also the matter of F2 having another Ferrari-backed title contender this year, in the form of

Robert Shwartzman.

So for Ilott right now, it's about waiting, hoping and learning. And being patient, of course – which is a virtue Ferrari certainly seems to value.

"THE PROGRAMME WITH FERRARI WAS ALWAYS TO TAKE TIME AND TO BUILD UP AND LEARN. I THINK IT'S WORKED OUT WELL FOR ME"

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WORDS STUART CODLING PORTRAIT MOTORSPORT IMAGES

STUART PRINGLE

Silverstone's managing director talks frankly about the challenges of making the British Grand Prix happen with a capacity crowd and the growing excitement around the Sprint Qualifying trial

the past few months? Back in January the June 21 date was pencilled in as the end of lockdown, so that must have been very challenging to plan around given all the uncertainty.

It's been the most intense period of my working life. Rollercoaster is a good description, because it's been up, it's been down, back up and down again. It's been very, very challenging. We've taken it as our working assumption throughout that the country would open up on June 21, although of course the government was extremely clear this was going to be data not date-driven. And then on June 14 the Prime Minister stood up – having heavily trailed the fact beforehand – to say that lockdown was going to continue for a period longer... until about nine hours after the chequered flag fell on the British Grand Prix.

Our race and the Dutch Grand Prix are the only ones which don't receive any public money towards the promoters' fee. It's widely understood that the money to pay for the circus to come to town comes from the people buying tickets for the circus. So when the alarm bells went off about the delay to the end of lockdown we were staring down the barrel of a very difficult financial situation.

What's been great is that the fans have continued to back us because they've committed to buying tickets. We've unquestionably been the beneficiary of cancelled holidays, of frustration at not being able to go out and do things for a long period. And the fans have been piling in for tickets, which has been deeply encouraging.

You've now been included in the government's Event Research Programme, which enables you to have a capacity crowd. How did that come about? Formula 1 is a UK-domiciled business and they have, independently of us, been very bullish that the British Grand Prix would go ahead.

What's it been like to be an event promoter over And they've been extremely supportive of our people on race day, 110,000 on Friday, and efforts to make it happen, working side by side every step of the way. Not just because it makes business sense for them as the commercial rights holder, but also because in their own fan surveys – which they've been doing since 2018 – Silverstone has ranked as the most popular venue in terms of fan satisfaction.

> By being an ERP-designated event, we're able to work with government and the Civil Service to disapply selected elements of the COVID legislation, such as social distancing and the maximum of six people in a hospitality setting. There are lots of complications which come with this, but our location has really worked in our favour. We're not in the middle of a city and we're not served by public transport, which have been the big hurdles for Wembley and Wimbledon. We are genuinely the most outdoor setting you can come across: our 75,000 grandstand seats are spread around 3.66 miles of track and our fiveand-a-half-mile perimeter fence has 19 access gates. Even if you're in a covered grandstand the canvas is a long way above your head, and fresh air is constantly circulating thanks to the stiff breeze we usually experience here.

Ticket holders will be expected to produce proof of a negative lateral flow test taken within 48 hours of arriving, or proof of full vaccination with the second jab having been received at least a fortnight before. We're expecting over 140,000

WHAT'S BEEN GREAT IS THAT THE FANS HAVE CONTINUED TO BACK US BECAUSE THEY'VE COMMITTED TO BUYING TICKETS

120,000 or more on Saturday as people come to see what 'Sprint Qualifying' is all about. And we're very pleased to be welcoming thousands of NHS and key workers who entered a ballot for free tickets as part of the Blue Light Tickets scheme.

Everyone who comes can expect the full range of off-track entertainment we usually arrange, including air displays and live music. This year we've got a Rudimental DJ set, Anne Marie and Becky Hill performing during the weekend.

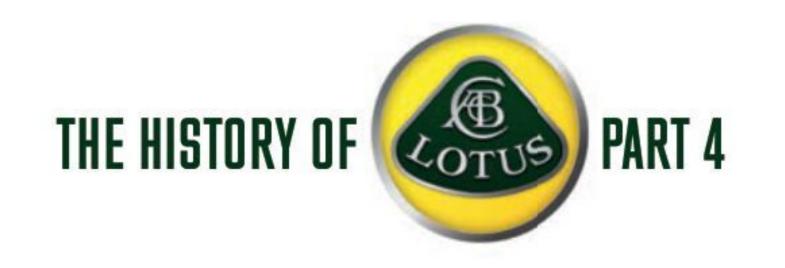
How much of an effect has the experimental Sprint Qualifying format had on ticket sales for the Saturday of the GP?

I think that with circumstances being as they are - we're almost sold out on race day at the time of speaking and many of those tickets are rolled over from last year – Saturday was going to be busy anyway. But I'm very pleased it's happening for the first time here at Silverstone. We're in front of 80million eyeballs globally and I reckon Sprint Qualifying will make that 100million. F1 are keen to have a big crowd at the British Grand Prix and the current ownership recognise it as one of the cornerstones of the world championship, which is why they've pushed so hard for it to happen and to be a success. You wouldn't have got that from the previous owner!

How valuable is it to have British stars in the field in terms of box office appeal?

Home heroes really count. I think during that period when Michael Schumacher was winning all the time there was a bit of a lull. It's a knowledgeable crowd but also passionate and a bit partisan. They love Lewis [Hamilton] but we've got Lando [Norris] and George [Russell] coming through as well. It's going to be a great atmosphere and I know F1 are expecting us to really kick-start the second half of the season.





THE HISTORY OF LOTUS

Cast in the mould of its founder **Colin Chapman**, Lotus was powerful and daring but flawed – as it proved through further soaring peaks and painful troughs into the 1980s

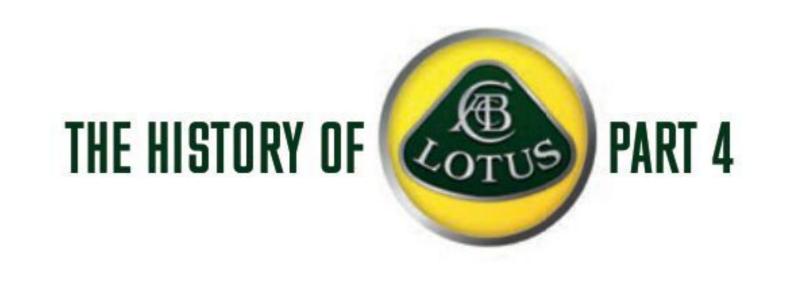
WORDS DAMIEN SMITH





PART 4: 1977-84





hen Niki Lauda first visited Fiorano he expressed surprise that Ferrari didn't win all the time, such were the obvious advantages at its disposal. The sentiment fits 1970s Team Lotus too, except it was people, not just its own cutting-edge facilities, that lent 'Britain's Ferrari' its true potency. First, no team had a force to match Colin Chapman: founder, visionary, pioneer, an inspirational and totemic leader on a never-ceasing quest to discover the next big thing. Then there was his fully-loaded workforce, a talented band of bluff designers, engineers and mechanics – all motor racing lifers – who were pulled along by his example, putting in (and putting up with) the endless string of all-nighters. Lotus was F1's school of excellence and hard

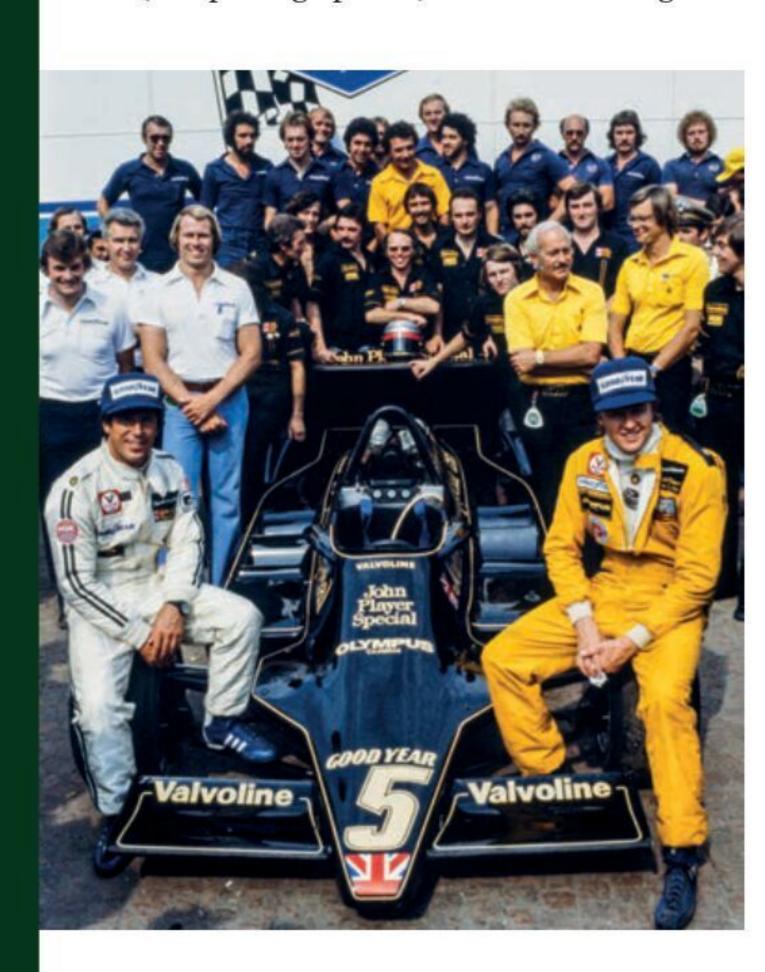
knocks, a mirror image of Chapman himself.
Which inevitably meant it was also flawed.
There was good reason why Lotus didn't win as much as it should have.

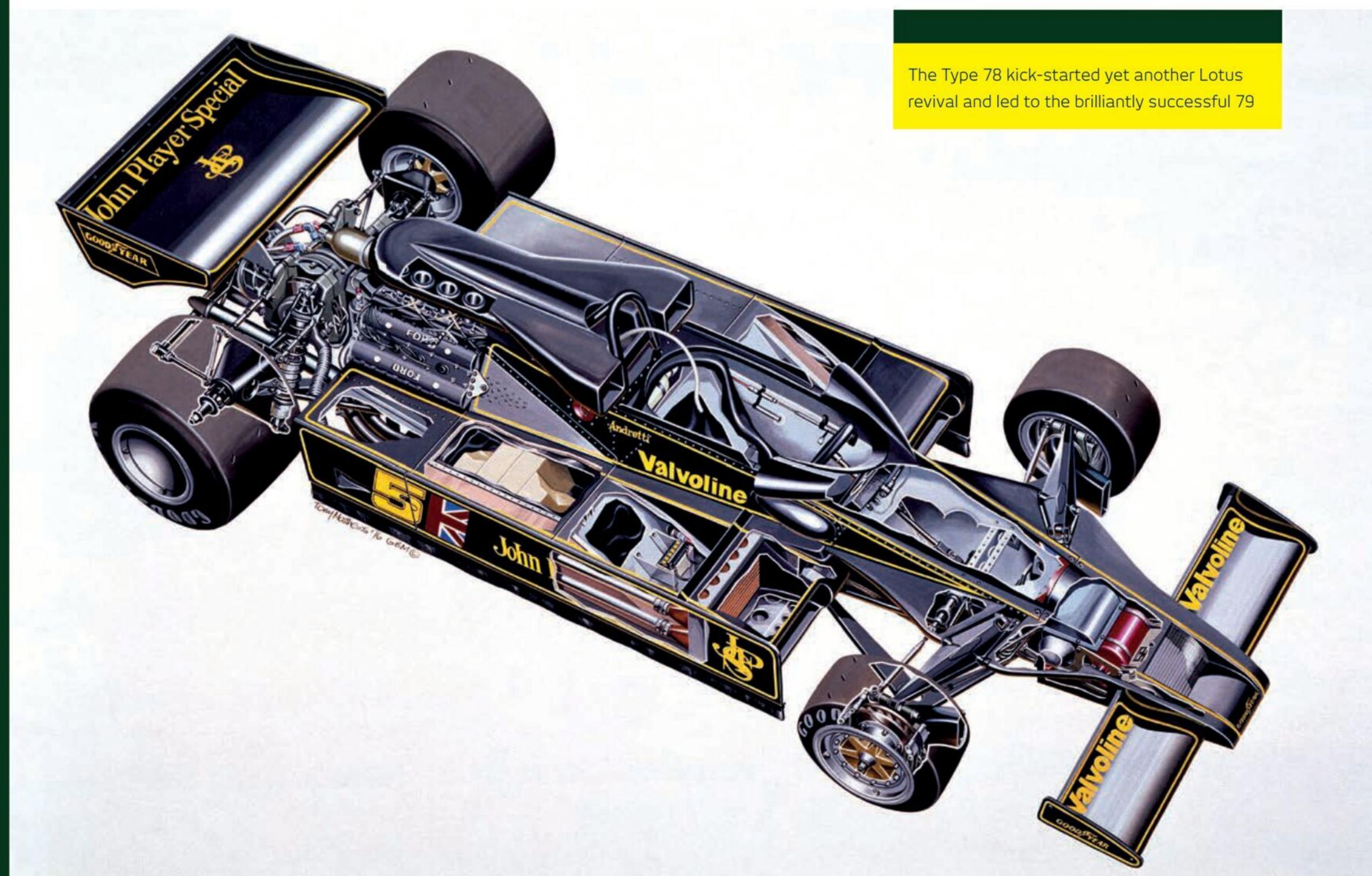
The distractions and technical cul-de-sacs.

The distractions and technical cul-de-sacs that had coloured the late 1960s and the brashly commercial decade that followed only intensified at Lotus as the age of the manufacturer superpowers dawned. Chapman and his intrepid band infuriated, slumping into the realms of

Andretti and Peterson (right): the line-up that clinched a seventh constructors' championship









mediocrity they had worked so hard to pull out from in the mid-1970s. But there was still time for one final gilt-edged black-and-gold season in F1's sun-drenched uplands.

In the moment it was darkest before the dawn, the summer of 1975, Chapman presented to his troops the route back to the light in a 27-page concept document of what he wanted next. It didn't have all the answers – quite the opposite. Instead, big questions were charged for Tony Rudd, head of his research and development team, to resolve from a new base in a grand old Norfolk manor, Ketteringham Hall. Rudd, for so long a rival at BRM, had switched sides in 1969 but was employed within the empire and away from F1. Now in harness with designer Ralph Bellamy and aero specialist Peter Wright, Rudd followed Chapman in a direction than would leave

Team Lotus sucking in the '70s – in a good way.

Rudd and Wright had developed a 'wing car' concept together way back at BRM. Ground effects, to use a car's entire form to create aerodynamic suction rather than rely on inverted wings to source downforce for a payment in drag, was far from new. But it needed Chapman to trigger the revolution that would change F1 forever. First, an extensive windtunnel programme experimented with the theory, shape and form, before Bellamy drew a car for Wright to mould into slippery existence. Layouts finalised, Martin Ogilvie devised the suspension and moving-part details as the band came together to create the Type 78. The 'Team' in Team Lotus had never been so apt.

A year on from Chapman's concept document, a prototype was ready to test for a fully tuned-in Chapman had to double Andretti's money to keep him out of Ferrari's hands for 1978

Mario Andretti and his likeable Swedish teammate Gunnar Nilsson, and the wraps were formally removed on what was officially the John Player Special MkIII on 21 December 1976. OK, on shock factor it was no six-wheeled Tyrrell – but it was far more significant.

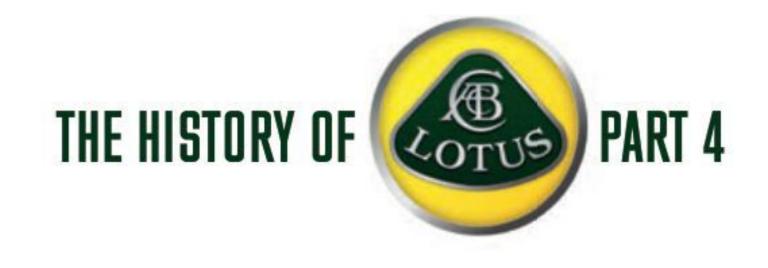
The slim monocoque carried echoes of the
Type 77 that had begun the Lotus revival in 1976,
but the broad pannier full-length sidepods were
the visual indicator of the new direction. Out of
sight, an inverted aerofoil section beneath the
water radiators in those long sidepods channelled
airflow, with potential spillage sealed by skirts
that brushed the ground to form a depression
beneath the car and suck it to the track.
The surface-level wings were only to add trim.
The faster the 78 went, the more it sucked –
and the more it stuck.

Andretti loved it. His contribution included a USAC Indycar-style rear anti-rollbar and with the added means of controlling the drain of three fuel cells to maintain weight bias and good handling over the course of a race. The technically adept American revelled in trimming out the car as he went along. No wonder this was Chapman's best driver relationship since Jim Clark. These two spoke the same language.

The upshot was a 1977 season that confirmed the Team Lotus revival, even if Andretti fell short of beating Lauda's Ferrari to the title. But Mario led more laps than anyone and scored four grand prix wins, one more than both Lauda and points runner-up Jody Scheckter in the new Wolf. Nilsson added another, his only F1 victory, at Zolder. The problem was engine reliability as Cosworth worked overtime to squeeze more from the DFV V8, which was beginning to wheeze in the face of Ferrari's flat-12. But the revolution was only at a canter in 1977: it would accelerate to full gallop in 1978 as 'Black Beauty' hit its stride.

Has there ever been an F1 car more perfect in form than the Lotus 79? From the moment it rolled out, shorn of JPS stickers at Silverstone's International Trophy, the car was an Event – a game-changer that upped the ante. Its predecessor lost 25% of the aero effect discovered in those early wind tunnel models; the 79 clawed it back and then some thanks to the fully realised ground effect that sucked away beneath those elegant sidepods. Now the venturis extended all the way back and, with the fuel packaged more compactly in one cell behind the driver

BUT THE REVOLUTION WAS ONLY AT A CANTER IN 1977: IT WOULD ACCELERATE TO FULL GALLOP IN 1978 AS 'BLACK BEAUTY' HIT ITS STRIDE



THE CAR RACKED UP EIGHT WINS. IF ANYTHING, THE RESULTS UNDERPLAYED THE 79'S SUPERIORITY

and tougher skirts further sealing the deal, the 79 hoovered up wins. But it wasn't perfect. The chassis wasn't stiff enough for all that downforce and its porous magnesium calipers often led to a soft brake pedal as the laps ticked by.

But hey, Andretti and new team-mate Ronnie Peterson could hardly complain too much during a halcyon 1978. Yes, 'SuperSwede' was back where he belonged after largely wasted years at March and Tyrrell, replacing poor Nilsson who was now battling the cancer that would eventually take his life. Andretti was nervous about another 'alpha' driver joining him after all the hard work he'd put in – but the pair quickly became firm friends. Just to be sure, Mario asserted his number one status and tension seeped into his relationship with Chapman – but how could you get mad at Ronnie? After Andretti aquaplaned out of the 79's debut at a drenched Silverstone International Trophy, he and Peterson embarked on a glittering season as the black-and-gold train steamed through the world championship races. The car racked up eight wins, six of them in Andretti's

Peterson returned to Lotus for 1978 and he and Andretti managed four 1-2s, but the Swede tragically lost his life after his Monza accident



hands, with four team 1-2s as Lotus swept to its seventh constructors' title (hard to imagine then it would be the last). If anything, the results underplayed the 79's superiority, although it might have been different had Gordon Murray's Brabham BT46B fan car not been set aside on Bernie Ecclestone's order following its landmark debut win at Anderstorp. Had it been Chapman's, no way would he have backed down – but from the start Ecclestone always was looking beyond Brabham and at the much bigger picture.

Chapman's vision, and the expertise of those behind him, had paid off so beautifully – but that only made the horrible twist at Monza all the more devastating. A scandalously chaotic start and the funnel effect of Monza's new firstcorner chicane led to a pile-up in which Peterson sustained severe leg injuries. Still, he'd been rescued from the blazing wreck by fellow drivers and was on his way to hospital, so Andretti took the restart, jumped it by a mile, won the race - and was then docked 60 seconds. It didn't matter. Ronnie had been his only title challenger and in strange, subdued circumstances Mario had landed his life's ambition. Then, during the night, Peterson's condition took a turn for the worse as an embolism set in. Unfathomably, he slipped away the following morning. There were unnerving Monza parallels: not only Jochen Rindt in 1970, more spookily how Phil Hill had become America's first grief-stricken world champion in 1961 on a day when his Ferrari team-mate Wolfgang von Trips and 14 spectators had died after a collision with Jim Clark. If you believed in such things, Lotus seemed burdened by a Monza curse. More prosaically, this was just reality in the cruel and violent sport of motor racing.

While lives existed on a knife-edge in F1 back then, so too, as it turned out, did form. How Chapman and Team Lotus blew their advantage so heinously in 1979 still beggars belief. But the Old Man, as was his wont, chewed off too much in his ambition to press on. The theory behind the Lotus 80 is logical, inspired and tantalising in its genius. But like the 4WD 63 and turbine-powered 56B, it failed. Horribly. From the 'wing car', Chapman, Rudd, Wright and Ogilvie evolved their concept to create the 'wingless wonder' for the ultimate trade-off in massive downforce for bareminimum drag. The design, presented in a return to British Racing Green mixed with Martini's stripes, was other-worldly and striking beyond



anything yet seen. Oh, if only it had worked.

The venturis now ran through the long wingless nose and all the way back beyond the rear axle, sealed by full-length skirts from tip to tail. If Andretti had described the 78 as "painted to the road", what shade of downforce was he about to uncover? Something far too garish for its elegant colours, as it turned out. At high speed, the car sucked the road too much, its area of low pressure moving along the centre of gravity, creating squat, then lift – an unnerving instability known as porpoising. At slow speed the 80 was worse, picking up then losing its downforce through the turns in a manner that made it undrivable - so much that Andretti's new team-mate Carlos Reutemann point-blank refused to even try. Mario made three starts in the 80, somehow coaxing it to third place on its debut in Spain (but behind Reutemann's 79), then called enough. Not for the first time, Chapman reversed from his cul-de-sac as Williams emerged as the 'new Lotus' with an FWo7 that tech director Patrick Head

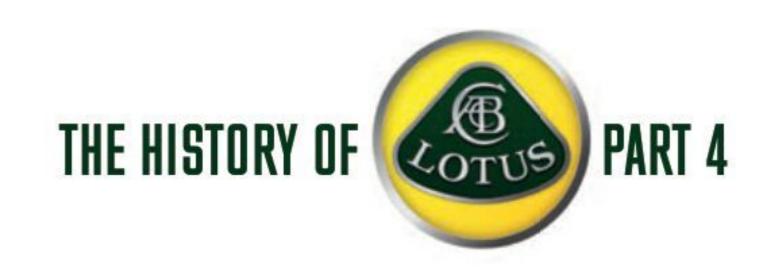


openly admitted was a well-engineered 79 copy: the car the Lotus 80 should have been.

Andretti lasted one final year before his patience with Lotus ran dry. You only have to look at the type 81 of 1980 to understand why. The smart blue, red and chrome of new sponsor Essex Petroleum couldn't hide its hideous bulk. The season was another disaster. Within two years of 'Black Beauty' superiority, Lotus had become something of an F1 joke, not helped by Chapman's ill-starred faith in Essex boss David Thieme, a sponsor relationship that began with a lavish launch at the Paradis Latin night club in Paris where the 81 was lowered dramatically from the ceiling. New distractions.

But that didn't mean the fire wasn't still lit. The Lotus 88 proved that, Chapman's final great experiment that didn't as such fail to fly - rather, it was thwarted from ever leaving the ground. Its twin-chassis concept was devised to combat the stiff suspension required for ground effects that made driving this generation so demanding









and lethal. The 88 allowed for an 'inner' chassis to be softly sprung, while the 'outer' or 'primary' chassis lowered towards the track at speed.

Amidst the cacophony of the FISA/FOCA war that raged through 1981, Chapman's next big thing was a political casualty (although would it ever really have worked? Like his other misfires, it was too complex). The 88 was banned from competing at its first two races on the grounds that the second chassis was effectively a full-length sprung, and therefore movable, aerodynamic device. When it failed scrutineering

Andretti was Chapman's last champion but Mario jumped ship after another poor season in 1980

for a third time, in Argentina, Chapman flew home in a fury. He tried again with a B-spec version at the British GP, but again the FIA threw it out, so he dug in and fought on as Team Lotus toiled with the 81B, all the way to an FIA Court of Appeals hearing in November – when he was

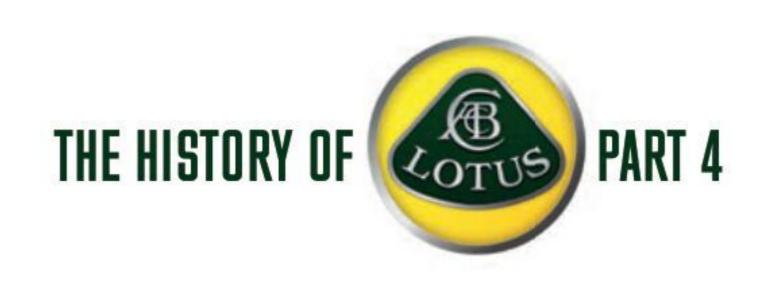
finally forced to raise the white flag.

A statement released that April offers insight into Chapman's increasing disenchantment with F1. "I shall seriously reconsider... whether grand prix racing is still what it purports to be: the pinnacle of sport and technological achievement," it read. "Unfortunately, this appears to be no longer the case and, if one does not clean it up, F1 shall end up in a quagmire of plagiarism, chicanery and petty rule interpretation forced by lobbies manipulated by people for whom the sport has no meaning." Ring a bell?

Then suddenly, on 16 December 1982, Chapman was gone, struck down by a massive heart attack. He'd looked much older than his 54 years. Perhaps he'd finally paid the price for those all-nighters. His death left a vacuum in F1 that was and never has been filled, and robbed Lotus of its life-force. Then there were the dangling question marks that could never be resolved. What had been the nature of his relationship and dealings with John DeLorean? Was that High Court judge correct in saying Chapman would have tasted Porridge in the wake of a financial scandal involving UK government money? What about the far-fetched theory that he was in so deep, he'd faked his own death? The complexity of Chapman's technical drive was mirrored not only in Lotus but in his whole personality.



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Peter Warr, long-serving lieutenant, picked up the pieces as Team Lotus plugged away. It's fitting that on the day Chapman died F3 racer Dave Scott was testing a Lotus at Snetterton fitted with a new big idea: active suspension. Lotus pioneered the next big thing, even if it would be Williams that perfected it, just as it had ground effects.

In alliance with Elio de Angelis, a wealthy, charming, young Marlon Brando lookalike who perhaps lacked the application to match his

IT WASN'T THE SAME WITHOUT THE OLD MAN, OF COURSE. HOW COULD IT BE?

In the hands of Elio de Angelis, the 91 was the last Lotus Chapman saw win before his death in 1982

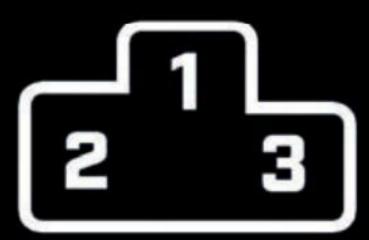
70 GP RACING JULY 2021

natural talent, Lotus still had its good days – including the last victory Chapman witnessed (and the first for four years) when Elio beat Keke Rosberg's Williams to the line by 0.05s at the Österreichring in 1982.

Then there was Nigel Mansell. Warr and others within Lotus always dismissed a man they labelled a whinger with an inflated view of his own talent, even after he became a winner at Williams. The mentor relationship with Chapman has perhaps been over-egged, although it's clear the Old Man saw something that would flower much later - and he always did want to find another Jim Clark. Mansell was brave - not even Warr could deny that – and his nationality prolonged his time at Lotus thanks to JPS, which had returned in the wake of the Essex farrago. But while there were nuggets that showed his potential, the lasting memory of Mansell in a Lotus is of him slithering on that white line at Massenet and smacking the Armco at Monaco 1984 – the last straw for Warr.

Instead, Lotus looked to a promising Brazilian in a vivid yellow helmet to inject a final dose of magic into its flagging odyssey. It wasn't the same without the Old Man, of course. How could it be? But imagine the fireworks: Colin Chapman would have loved Ayrton Senna.

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NIGEL ROEBUCK'S F D R M U L A D N E HEROEBUCK'S CONTRACTOR OF THE CONTRACTOR OF THE

EMERSON FITTIPALDI



"PEOPLE ASK ME ABOUT MY CAREER.."

said Emerson Fittipaldi, "but, really, I had two completely separate careers. When I retired from Formula 1, in 1980, I thought I was giving up driving for good. By 1984, though, I was on the grid at Indianapolis..."

Fittipaldi's rise in motor racing was swift. Born in São Paulo in 1946, he excelled in local karting events, and by 1969 had moved to England, where he so impressed in Formula Ford, then Formula 3, that by mid-1970 he was invited to join the Lotus Formula 1 squad. At Hockenheim, only his second race, Emerson finished a remarkable fourth in an obsolete 49; for Monza, Emerson was allotted a 72, the car with which Jochen Rindt set course for the world championship.

"On the first day I had a huge accident — I looked in the mirrors, missed my braking point, and when I looked back, there was [Ignazio] Giunti's Ferrari. I hit the back of it, went over the bank, and into the trees. The toughest thing, though, was to tell Colin Chapman what happened — that car was to be Jochen's the following day. It was brand-new, and they wanted me to bed everything in, but now it was destroyed. I had to be honest, and say that I just screwed up."

Rindt's Lotus 72C suffered a front brake shaft failure, pitched left, and hit a guardrail post at around 150mph. There was no surviving the accident, and for Fittipaldi this was a massive blow: Rindt, as well as his team-mate,

was a man he idolised.

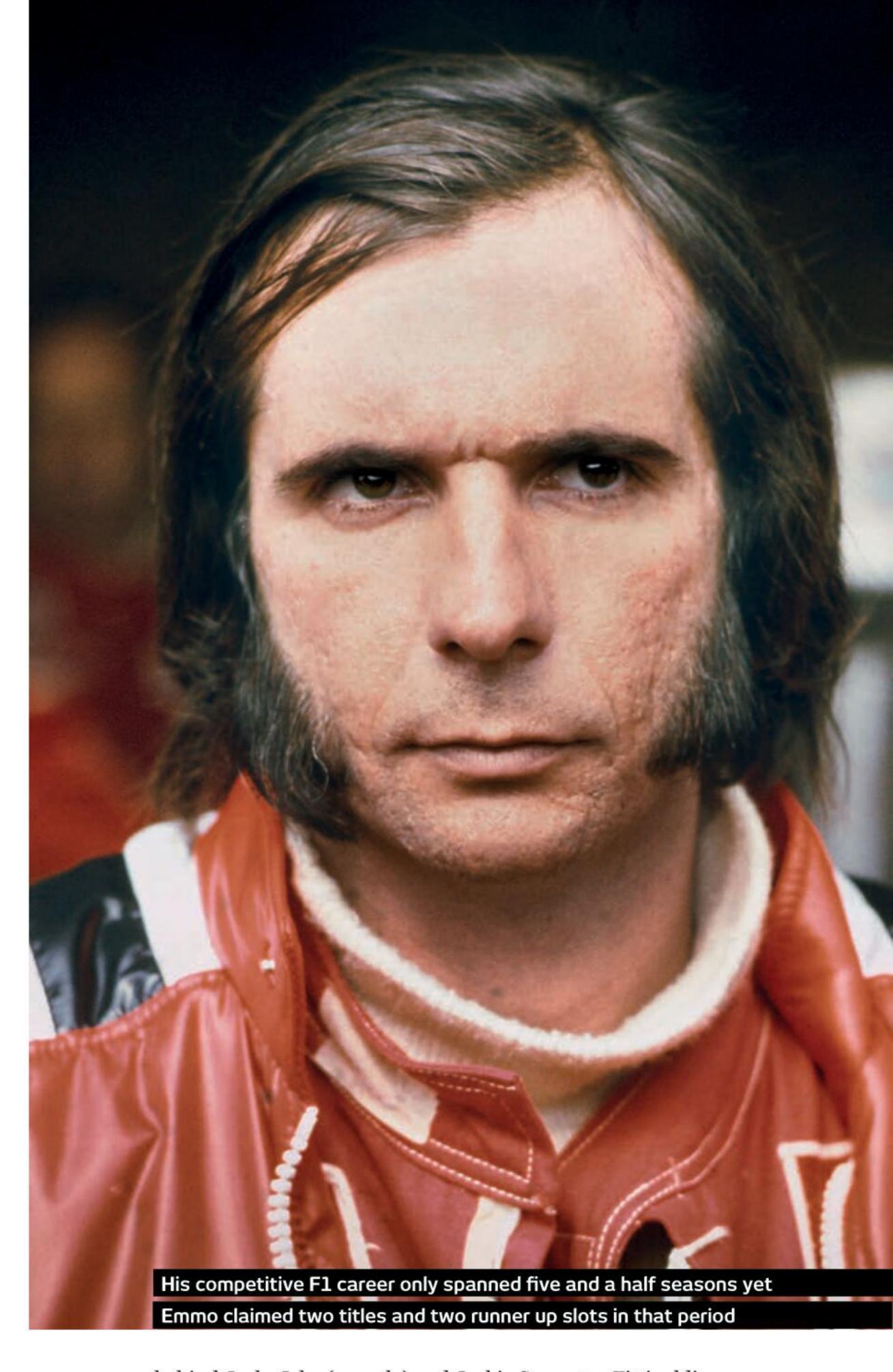
In Saturday's final session, approaching Parabolica,

"Emotionally, it was devastating. I had breakfast with Jochen that morning at the Hotel de la Ville, and he asked me to drive for his F2 team the following year. A few hours later he was dead, and suddenly I realised how fragile life was – the odds on getting killed were so high back then."

The remaining Lotuses were withdrawn from the event, then skipped the trip to Mosport. Next on the schedule was Watkins Glen, and there – after qualifying third,

Fittipaldi twice won the British Grand Prix, his second success coming at Silverstone in 1975





behind Jacky Ickx (on pole) and Jackie Stewart – Fittipaldi won what was only the fourth grand prix of his life.

He freely admitted there was luck involved, but he had driven faultlessly, and the effect on Team Lotus, shattered by the loss of Rindt, was profound. Now a fixture in the team, in 1972 Emerson became world champion, winning five of the 12 GPs along the way.

"The best cars I ever drove were the Lotus 72 and the Penske PC18, when I worked with Patrick Racing in 1989. In both cases, I could talk to the car, and the car could talk to me. You almost never get that situation, but when you do, it's fantastic. Although I won the championship in 1972, the Lotus 72 was at its best the following year, and I think my best F1 drive was in Argentina – towards the end I had the two Tyrrells ahead of me, [François] Cevert leading Stewart. We had a really incredible dice, but Jackie got a slow puncture, and then I eventually got by François. On the limit all the race."

For 1974 Fittipaldi left Lotus for McLaren, where he continued to flourish, winning his second title, then finishing second to Niki Lauda the following year.



"I enjoyed my two seasons with McLaren — but then made a bad decision. My brother Wilson and I had decided to build our own car, and he drove it in 1975, the first year. I then took over, but we underestimated what we had taken on, technically and financially. In my last two years in F1, I went to the races only because it was an obligation. Not good."

Fittipaldi Automotive continued for two more years, with Emerson now in a management role, but by the end of 1982 it was all over, and he returned to Brazil. Initially he didn't miss racing, but in 1984 accepted an invitation to drive a March IMSA car at Miami, and while there met a man – one Pepe Romero – who said he was buying a March Indycar, and would Fittipaldi care to drive it? Thus began his second career.

"I'd loved most of my time in F1, but I found Indycar racing – CART, as it was then – much more relaxed, just what I needed at that point in my life."

Later in 1984 Emerson joined Patrick Racing, replacing a young Chip Ganassi, who had been seriously hurt at Michigan. At the same track, a year later, Fittipaldi claimed his first Indycar win, and in 1989 his first CART championship

"Most of all from that year I remember Indianapolis, and a big dice with Al Unser Jr. Towards the end I was leading, but then there was a yellow, and we pitted. There were about 15 laps to go, that's all – and they completely filled up the car with fuel! Morris Nunn had done all the calculations, and went crazy, but Pat [Patrick] said, 'I'm the boss!'. On the restart it was a nightmare: I saw Junior

"I'D LOVED MOST
OF MY TIME
IN F1, BUT I
FOUND INDYCAR
RACING MUCH
MORE RELAXED,
JUST WHAT I
NEEDED AT THAT

EMERSON FITTIPALDI

He passed me quite easily, with four laps to go, and it was a terrible moment – this was the Indianapolis 500!

"We got to lap 199, with one to go, and into Turn 1 we came

coming, and couldn't pull away - I didn't know I was on full tanks.

"We got to lap 199, with one to go, and into Turn 1 we came up on slower cars. Al got held up more than I did, and I came off [Turn] 2 much quicker, towed him down the backstretch, so we were side by side into [Turn] 3. I told myself I wasn't going to lift, but there was a backmarker ahead, and in the turbulence from his car I lost downforce, and began to slide up the track. Al and I touched, and I was very lucky – he crashed, and I didn't..."

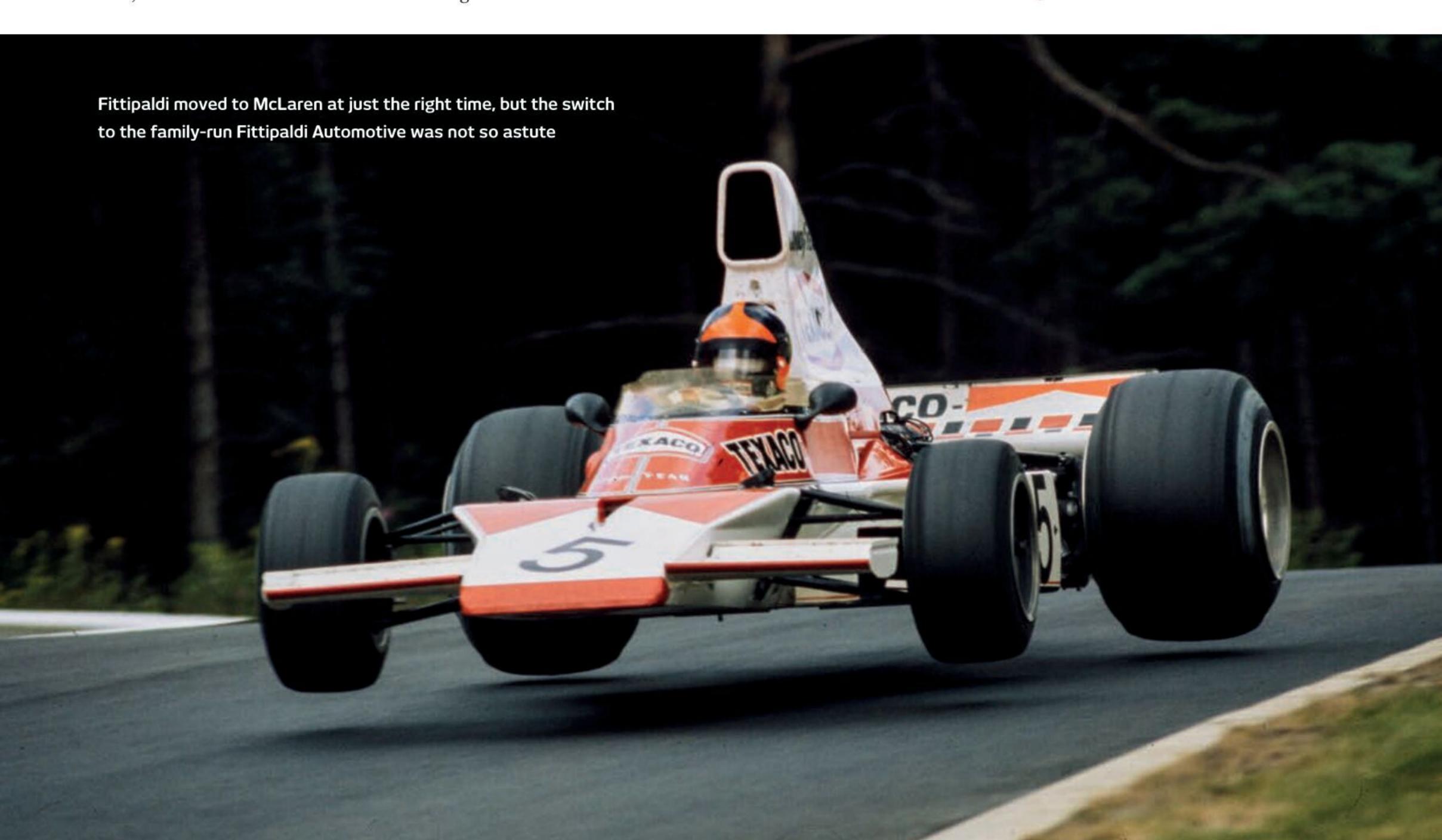
Four years later, Fittipaldi found himself in a similar situation. Now driving for Roger Penske, he was leading in the late stages when Nigel Mansell, running third, clouted the wall at Turn 2.

"Earlier in the race," Emerson remembered, "I ran about 150 miles behind Nigel. It was his first time at Indy, and he was doing unbelievable things, but I wasn't surprised when he eventually hit the wall. Actually, Ayrton [Senna], who had raced against him so much in F1, had warned me what to expect!

"Mansell was a great driver, but he operated 'on emergency' the whole time. He'd go into a corner over the limit, then somehow sort it out. When he hit the wall, there was a yellow – and actually he benefited from it, because his car wasn't damaged, and it closed the gap! Fortunately, when we came to the restart, I had more experience, and was able to get away."

Fittipaldi's two worlds, then, and he loved them both, finally retiring in 1996, as his 50th birthday beckoned. "I was so lucky, wasn't I? I raced against people like Stewart and [Niki] Lauda in F1, and then guys like Michael Andretti, Al Jr, Rick Mears, in Indycar racing. And of course, there was Mario [Andretti] — in both categories, he was incredible."

As indeed was Emerson.

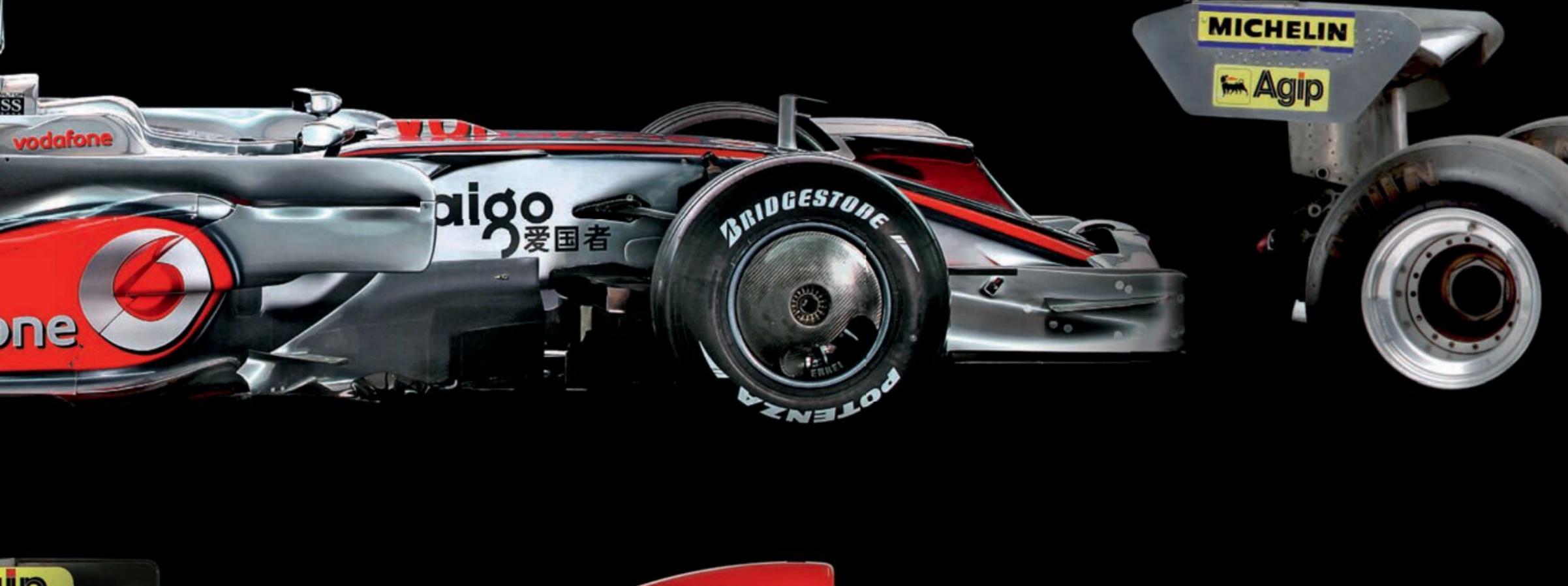


NOW THAT WAS A CAR

BRITISH GP CONQUERORS

No. 100

WORDS STUART CODLING PICTURES JAMES MANN The British Grand Prix is where the world championship began – and these era-defining cars have all scored memorable victories in Formula 1's original race











ALFA ROMEO 158



SILVERSTONE, 13 MAY 1950

1st Giuseppe Farina, Alfa Romeo 158 2h13m23.6s

2nd Luigi Fagioli,

Alfa Romeo 158 +2.6s

3rd Reg Parnell,

Alfa Romeo 158 +52.0s

Talbot-Lago T26C-DA

4th Yves Giraud-Cabantous,

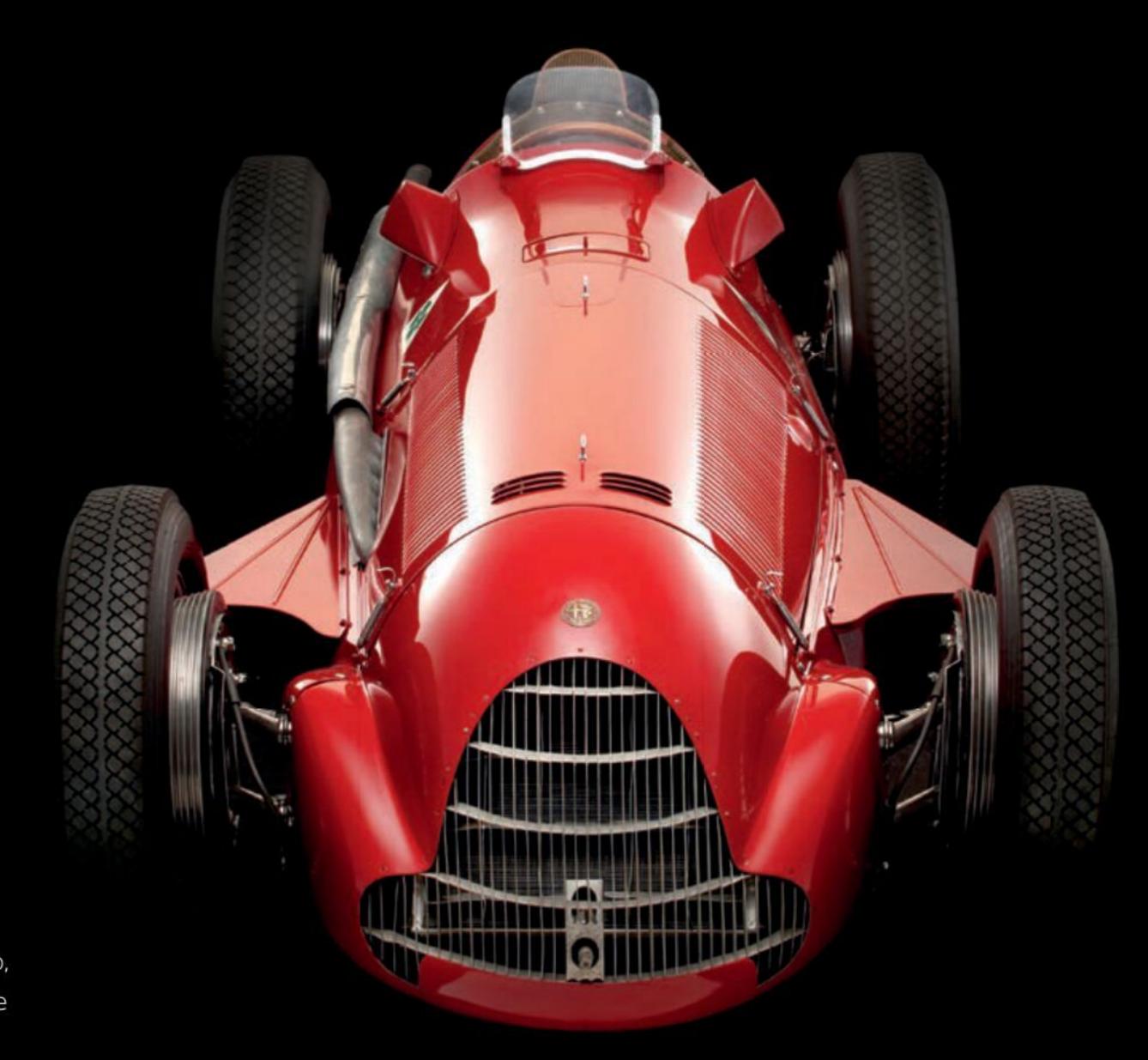
+2 laps

5th Louis Rosier, Talbot-Lago T26C

6th Bob Gerard,

ERA B +3 laps **DNF** Juan Manuel Fangio,

Alfa Romeo 158 - oil pipe





THE DOMINANT FORCE in the first two years of the Formula 1 world championship hadn't even been cutting-edge when it was new, over a decade earlier. Initiated by Enzo Ferrari when he was running Alfa's competitions department, and designed by Gioacchino Colombo, the 158 was conceived as a means of occupying the same racetracks as Mercedes and Auto Union without the embarrassment of competing directly against them and suffering virtually inevitable defeat: its 1.5-litre supercharged straight-eight engine placed it in the 'voiturette' sub-class.

As organised motor racing began again after the war Formula A, later Formula 1, permitted 1.5-litre blown engines and 4.5-litre naturally aspirated ones. The rules were shaped by expediency because very few top-level racing machines had survived the conflict (the 158s had been hidden to avoid being melted down for munitions), and casting the net relatively wide was the only way to ensure healthy grids.

Alfa's experience running the car gave it the jump, and its revvy eight-cylinder engine responded well to larger and more sophisticated superchargers. The Maserati 4CLT's fourcylinder engine couldn't quite match the Alfa's grunt, relegating it to scrapping for best-of-therest status with Talbot-Lago's T26C, a new car based on old underpinnings and powered by a 4.5-litre naturally aspirated straight-six.

Giuseppe Farina took pole position for the first world championship F1 grand prix at Silverstone in the fastest of four Alfas entered, 1.8s quicker than Prince Bira in a Maserati. King George VI, Queen Elizabeth, Princess Margaret and Lord Mountbatten were in attendance on race day as Farina led an Alfa rout. Juan Manuel Fangio's 158 succumbed to a broken oil pipe but Reg Parnell's survived a close encounter with one of Silverstone's famous hares to complete the podium. Fourth-placed Yves Giraud-Cabantous was classified two laps down in a Talbot-Lago.



A CLASSIC EXAMPLE OF the pencil-on-napkin design school, the Lotus 25 epitomised the lighter-stiffer-faster route to success in F1's 1.5-litre era. With less power, race car designers had to turn to aerodynamics and structural science to find performance differentiators.

Lotus purchasing director John Standen is credited with sketching the first proposal over lunch at the company's local greasy spoon: two 'backbone' chassis lifted from the Elan road car, each containing a rubber fuel tank, connected with steel bulkheads at each end to form a 'tub' in which the driver reclined. As developed by Colin Chapman, chief draughtsman Alan Styman, and (later) Len Terry, the result was

genre-defining. The 25 might not have been the first racing car to achieve lightness, stiffness and shrink-wrapped proportions by embracing aircraft-style stressed-skin construction, but it did so with a completeness and simplicity which soon made the philosophy *de rigueur*.

Tyre technology was also advancing. The 25's rigidity enabled it to maximise the strengths of the high-hysteresis synthetic rubber in Dunlop's R5 family. Softer spring rates took the edge off the R5's tendency to overheat in dry weather, especially when the car was guided by Jim Clark.

Reliability was a bugbear early on – Chapman liked his cars pared to the bone and would only beef up components which broke – but

Clark took his first grand prix wins and his first title aboard the 25. His second victory came at Aintree in 1962, the last British Grand Prix to be held there, and Clark led throughout from pole position to beat John Surtees by nearly a minute.

A year later, at Silverstone, Surtees had upgraded to a Ferrari but there was still no touching Clark – who was using the same set of R5s he'd run at Zandvoort and Reims. This time the margin of victory was 'just' 25.8s.

Clark, now world champion, claimed another British GP win before the 25 was phased out in favour of the 33. Brands Hatch, making its GP debut, provided the venue for a tighter affair in which Clark battled throughout with Graham Hill.





LOTUS 25



AINTREE, 21 JULY 1962

1st Jim Clark, Lotus 25 2h26m20.8s 2nd John Surtees, Lola Mk4 +49.2s

SILVERSTONE, 20 JULY 1963

1st Jim Clark, Lotus 25 2h14m09.6s 2nd John Surtees, Ferrari 156 +25.8s

BRANDS HATCH, 11 JULY 1964

1st Jim Clark, Lotus 25 2h15m07.0s 2nd Graham Hill, BRM P261 +2.8s 3rd John Surtees, Ferrari 158 +1m20.6s 3rd Bruce McLaren, Cooper T60 +1m44.8s 4th Graham Hill, BRM P57 +1m56.8s 5th Jack Brabham,

3rd Graham Hill, BRM P57 +37.6s 4th Richie Ginther, BRM P57 +1 lap 5th Lorenzo Bandini, BRM P57 +1 lap

Lotus 24 +1 lap

4th Jack Brabham,
Brabham BT7 +1 lap
5th Lorenzo Bandini,
Ferrari 158 +2 laps
6th Phil Hill,
Cooper T73 +2 laps
9th Mike Spence,
Lotus 25 +3 laps

6th Tony Maggs, Cooper T60 +1 lap

66th Jim Hall,
Lotus 24 +2 laps
DNF Trevor Taylor,
Lotus 25 - fuel pump

DNF Mike Hailwood, Lotus 25 - oil pipe DNF Chris Amon, Lotus 25 - clutch "USELESS AND FINISHED" was Niki Lauda's scathing assessment of the 312 T2 which conveyed him to the world championship in 1977. But then again, Lauda's relationship with Ferrari had deteriorated to the point where he checked out after establishing an unassailable points lead, skipping the last two races of that season. A reboot was required all round at Maranello.

Carlos Reutemann assumed the mantle of team leader alongside new recruit Gilles Villeneuve, and chief engineer Mauro Forghieri heavily revised his time-served semi-monocoque chassis design to accommodate a decision taken at the very top. Keen to get an edge on rivals, Enzo Ferrari had terminated his arrangements with

Goodyear and signed up for a year on Michelin's new radials. Ambitious as Michelin was, though, it simply hadn't gained enough mileage through its previous exclusive deal with Renault and its temperamental new turbo.

Ferrari hadn't caught on to the ground-effect aerodynamics being honed by Lotus, but the new car's flatter, squarer shape was sculpted in Pininfarina's windtunnel with straightline speed and balanced downforce in mind. The suspension geometry was recrafted in tandem with the switch from cross-ply rubber: out went the long front rockers and small springs in favour of bigger coil-over shocks and tubular wishbones. The rear suspension redesign also required a new casing

for the transverse gearbox.

Throughout the season the T3 was understeerprone and highly sensitive to tyre choice – and, once Lotus put its 79 in the field, Reutemann's hopes of taking the drivers' title slid away. But a switch to higher-profile rubber mid-season had a transformative effect on the T3, enabling Reutemann to claim a memorable scalp in the British Grand Prix at Brands Hatch.

Reutemann qualified eighth but with both
Lotuses out by mid-distance he reeled in leader
Lauda, executing an opportunist pass with 16 laps
to run as they lapped Bruno Giacomelli's dawdling
McLaren M26. Villeneuve had by then departed
with transmission failure in the T3 pictured here.





WILLIAMS FW11



BRANDS HATCH, 13 JULY 1986

1st Nigel Mansell, Williams FW11 1h30m38.471s

SILVERSTONE, 12 JULY 1987

1st Nigel Mansell, Williams FW11B 1h19m11.780s 2nd Nelson Piquet, 2nd Nelson Piquet, Williams FW11 +5.574s 3rd Alain Prost,

McLaren MP4/2 +1 lap 4th René Arnoux,

Williams FW11B +1.918s

3rd Ayrton Senna, Lotus 99T +1 lap

4th Satoru Nakajima, Lotus 99T +2 laps



Ligier JS27 +2 laps 5th Martin Brundle, Tyrrell 015 +3 laps 6th Philippe Streiff, Tyrrell 015 +3 laps

5th Derek Warwick, Arrows A10 +2 laps 6th Teo Fabi, Benetton B187 +2 laps









IN THE 1980S POWER trumped sophistication as developments in the engine bay provided the easiest laptime gains. By the middle of the decade, Honda had honed its 1.5-litre V6 concept into a proven winner which occupied a desirable 'sweet spot' in the characteristics range: while it lacked the peak qualifying grunt of BMW and Renault, in race trim it was in a similar ballpark - and more frugal, important when the FIA was limiting fuel tank capacity to hamper power gains. Only McLaren's TAG V6 was more parsimonious, but top-end power was not its strongest suit.

The FW11 was only the second Williams to feature full carbonfibre construction and, like the contemporary Ferrari F1-86, the 'tub' was

moulded as an inverted 'u' shape with the floor bonded in later. Williams had yet to gain the materials know-how and manufacturing capacity to follow the example of McLaren. While the FW10 had won races it was sacrificing too much straightline performance for downforce in the form of larger wings; for the FW11 Patrick Head's design team took advantage of the reduction in fuel tank sizes to recline the driver even further in the cockpit and achieve a smaller frontal area.

Honda collaborated by producing an even more powerful evolution of its engine, capable of 900bhp in race trim but with the facility to be turned up beyond 1100bhp in qualifying.

The FW11 and its B-spec sequel were the

fastest cars throughout 1986 and 1987 and duly brought home the constructors' titles, but neither Nelson Piquet nor Nigel Mansell would claim the drivers' championship in 1986. In the absence of team founder Frank Williams, injured in a road accident, the drivers fell to squabbling. Energised by his home crowd, Mansell took two of his finest victories on home soil in these years: he was fortunate to be in the running at all in 1986, for his diff let go on the opening lap but a red flag enabled him to take the restart in Piquet's spare. In 1987 he flirted with piston melt by turning up the turbo wick and selling his team-mate a famous dummy on Hangar Straight, lunging up the inside to take the lead with two and a half laps to run.

FERRARI 641



SILVERSTONE, 15 JULY 1990

1st Alain Prost, Ferrari 641 1h18m30.999s 2nd Thierry Boutsen, Williams FW13B +39.092s

3rd Ayrton Senna, McLaren MP4/5B

+43.088s

4th Éric Bernard, Lola LC90 +1m15.302s

5th Nelson Piquet, Benetton B190

+1m24.003s

6th Aguri Suzuki, Lola LC90 +1 lap

DNF Nigel Mansell,

Ferrari 641 - gearbox







GOOD TYEAR

Agip

Agip

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Agip

display in the New York Museum of Modern Art, Ferrari's 641 also ranks among F1's

A CAR SO STRIKINGLY ELEGANT that one is on

great lost opportunities. Evolved by Enrique Scalabroni and Steve Nichols from the original 640 laid down by John Barnard, it undoubtedly represented the peak of the concept in terms of performance – it was all downhill from here – but reliability, so long a Ferrari bugbear in this era and earlier, prevented it from bringing home the trophies it warranted.

In an era of McLaren-Honda dominance no other car or team could offer such consistent opposition until Williams completed its resurgence after Adrian Newey came on board

in mid-1990. The brute force of Honda's horsepower enabled – or should that be 'compelled' - McLaren to fit ever larger wings in order to contain it, with the result that its cars grew bulkier in appearance. The 640 and 641 were slim and elegant, striving to achieve ducted airflow through their Coke-bottle-shaped sidepods to benefit the work of the diffuser. Lowdrag aerodynamics had to take up slack left by a V12 engine which sounded marvellous but fell short of the horsepower claimed for it. Plus there was the unique feature soon to become essential across the grid: a semi-automatic gearbox which enabled the drivers to change gear without taking their hands off the wheel.

Alain Prost brought the champion's number one plate with him from McLaren in 1990 and immediately resumed his rivalry with former team-mate Ayrton Senna. On the other side of the Ferrari garage, Nigel Mansell felt the love and attention pivoting away towards his new teammate, a belief compounded as Mansell suffered four car failures in the first seven races and Prost won in Brazil, Mexico and France. Come Silverstone - round eight - Mansell qualified on pole but exited when his gearbox packed up on lap 55. As Mansell threw his gloves into the crowd and announced his retirement Prost won, moving into the lead of the drivers' championship. We all know how that scenario played out...



FEW WOULD DENY THAT Lewis Hamilton drove more consistently over the balance of 2007, his debut season in which he was trumped for the drivers' title by Ferrari's Kimi Räikkonen in the final round, than he did in a topsy-turvy and incident-strewn 2008. Partly that can be accounted for by the legacy of 'Spygate', the industrial espionage scandal which resulted in McLaren paying a record \$100m fine and forfeiting its constructors' points. Not only was the genesis of the MP4-23 subjected to unprecedented scrutiny, lest its design contain any trace of Ferrari DNA, to operate it McLaren had to set up camp at the far end of the pitlane alongside the backmarkers team principal Ron Dennis disdained.

The aerodynamic configuration was a clear carry-over from the MP4-22 which had so nearly propelled Hamilton to the championship, though the new car had a slightly longer wheelbase. Ferrari had gone shorter, and evidence from the opening races suggested its F2008 had the MP4-23 beaten on traction out of slow corners even if they were equally matched elesewhere.

Hamilton won the opening round but looked discombobulated elsewhere, fluffing the start in Bahrain before clouting former team-mate Fernando Alonso's Renault, hitting the barrier in Monaco (before an excellent, if strategy-assisted, recovery drive to victory), and driving into the back of Räikkonen in the pitlane in Canada. It was

at Silverstone, for the British GP, where Hamilton got his season back on track after finishing a penalised 10th at Magny-Cours a fortnight earlier.

Team-mate Heikki Kovalainen occupied pole on a very damp grid – this was not a British GP characterised by barbecue weather – but Lewis shadowed him for four laps before making his move for the lead at Becketts. Thereafter Hamilton was in a class of his own as conditions worsened – Ferrari's Felipe Massa, his title rival, spun five times – and the worried McLaren pitwall began to urge Lewis to slow down. But this was indubitably Hamilton's day of days, a foreshadowing of his future dominance – and a victory by over a minute on (wet) home soil. 🙃

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McLAREN MP4-23



SILVERSTONE, 6 JULY 2008

1st Lewis Hamilton, McLaren MP4-23 1h39m09.440s

2nd Nick Heidfeld,

BMW-Sauber F1.08

+1m08.577s

3rd Rubens Barrichello, Honda RA108 +1m22.273s

4th Kimi Räikkonen,

Ferrari F2008 +1 lap

5th Heikki Kovalainen, McLaren MP4-23

+1 lap

6th Fernando Alonso, Renault R28 +1 lap









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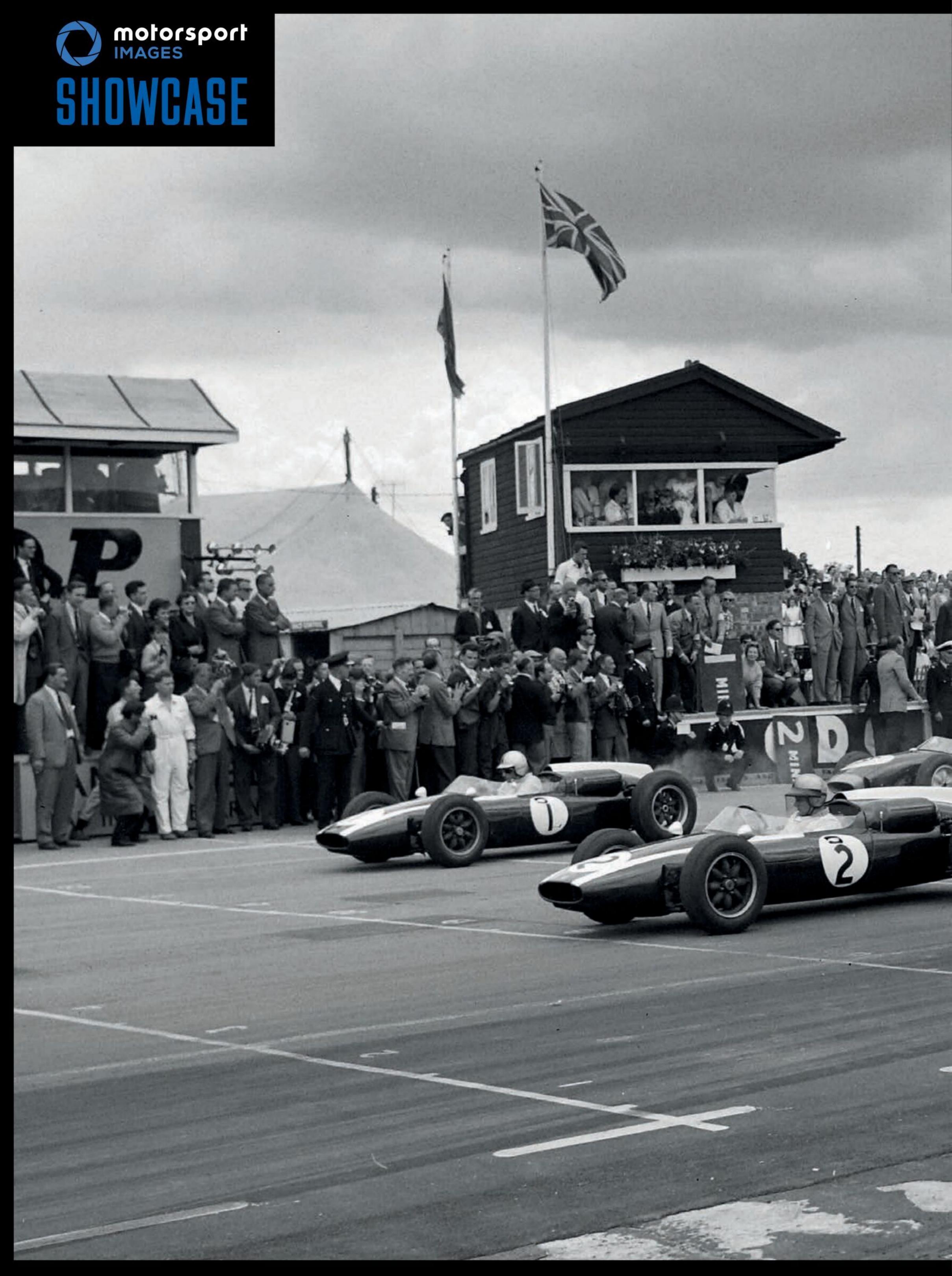
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SILVERSIONE

As it prepares to host F1's first sprint race, the home of British motor racing has many other highlights to reflect on

■ Partially obscured by Dan Gurney (car 5) at the 1960 British GP is Graham Hill. Hill qualified his BRM second only to stall at the start, and get away last. Amazingly, by lap 55 he passed Jack Brabham for the lead, only to spin out at Copse with six laps left to hand the win to Brabham



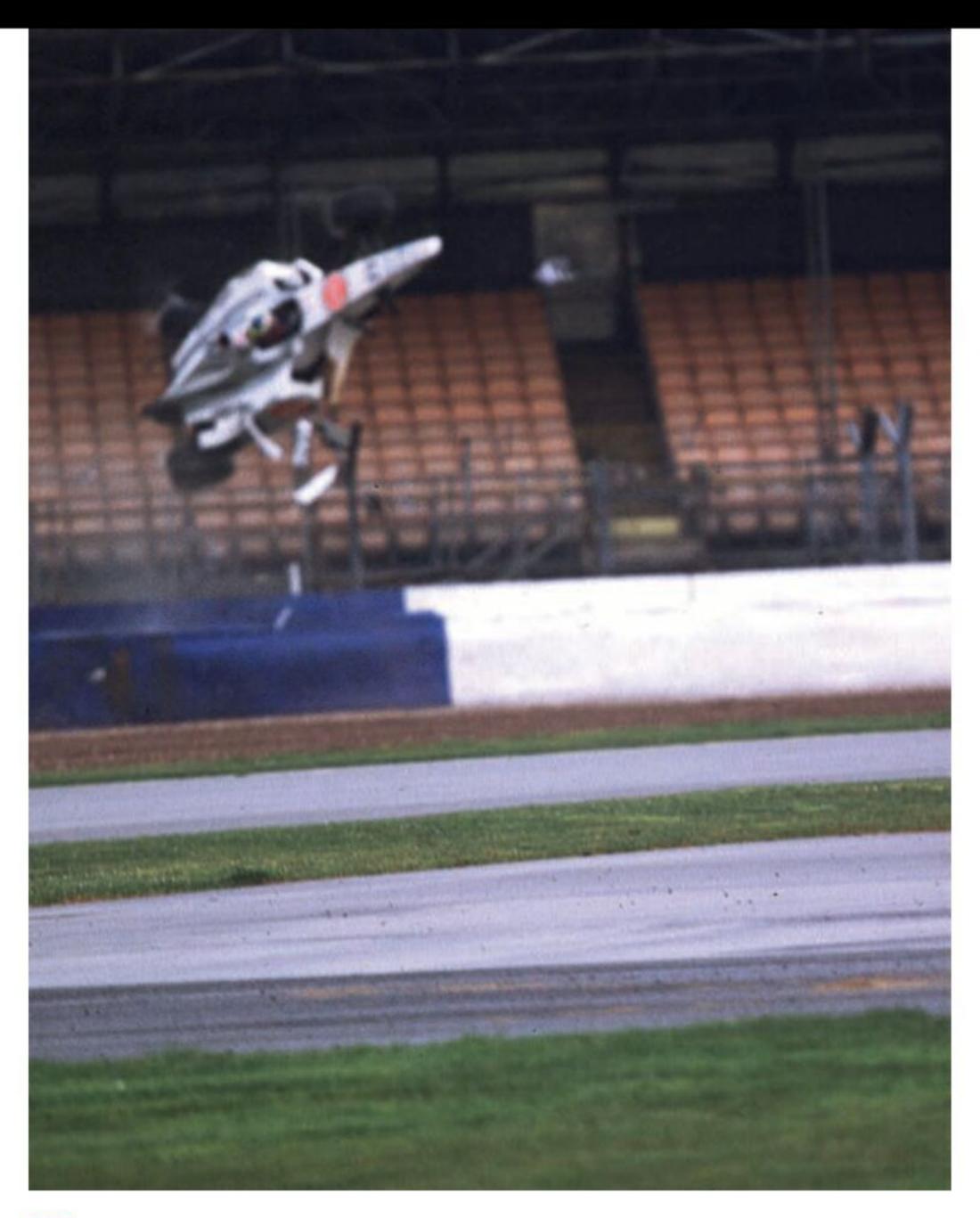
motorsport IMAGES SHOWCASE SILVERSTONE

In 1948 the RAC took a one-year lease on the Silverstone aerodrome. That October it ran, to the 'new' F1 regulations, what is commonly regarded as the first British GP, two years before the start of the world championship. On a basic circuit, using the three runways, Luigi Villoresi won and was followed home by Maserati team-mate Alberto Ascari. The rest is history...

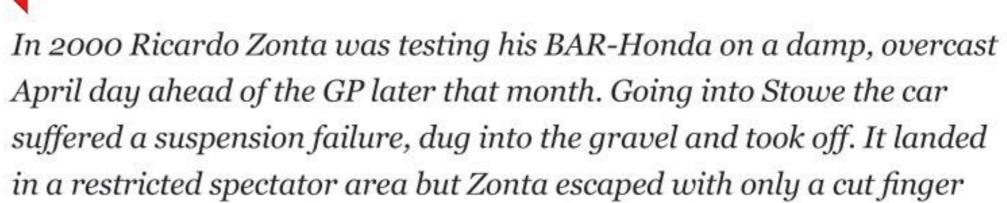
Lewis Hamilton's first British GP at Silverstone in 2007 ended with a podium finish from pole position. In 2008 he qualified fourth but led by lap five and then proceeded to put in a masterful display in very wet conditions. Hamilton finished over a minute ahead of Nick Heidfeld's BMW-Sauber in second







After his two-year dalliance at Ferrari, Nigel Mansell's return to Williams in 1991 started slowly with three straight retirements. However, a week before the British GP he won in France, and at Silverstone it was classic 'Nige' as he took pole, fought off Ayrton Senna at the start and led every lap...



There had already been British winners of the British GP – Stirling Moss in 1955 and again with Tony Brooks in 1957 – but a British driver hadn't been successful in the race at Silverstone. In 1958 Peter Collins (right) led home team-mate Mike Hawthorn in a Ferrari one-two to nail that achievement







The circumstances of the COVID-19 pandemic meant that last season Silverstone hosted two full world championship races, the second of which was aptly titled the 70th Anniversary GP to commemorate the first race at the same track on 13 May 1950. Max Verstappen, seen here passing Valtteri Bottas on lap 27 just

after his second pitstop, went on to win for the first time in 2020

1992 was the culmination of years of Mansell worship by the Silverstone faithful when Nigel won the British GP in his championship-winning season. The Williams driver beat teammate Riccardo Patrese by nearly 40s and the crowd couldn't wait to lavish their praise on Mansell, invading the track when cars were still circulating. There's an F1 car in there somewhere...





1

The second of Jim Clark's four consecutive British GP victories, in 1963, was the first of two wins at Silverstone. This race was also the first time the British GP podium had been made up solely of British drivers, with John Surtees and Graham Hill following Clark home. Hill was second and Surtees third in 1964 (at Brands) and 1965 too

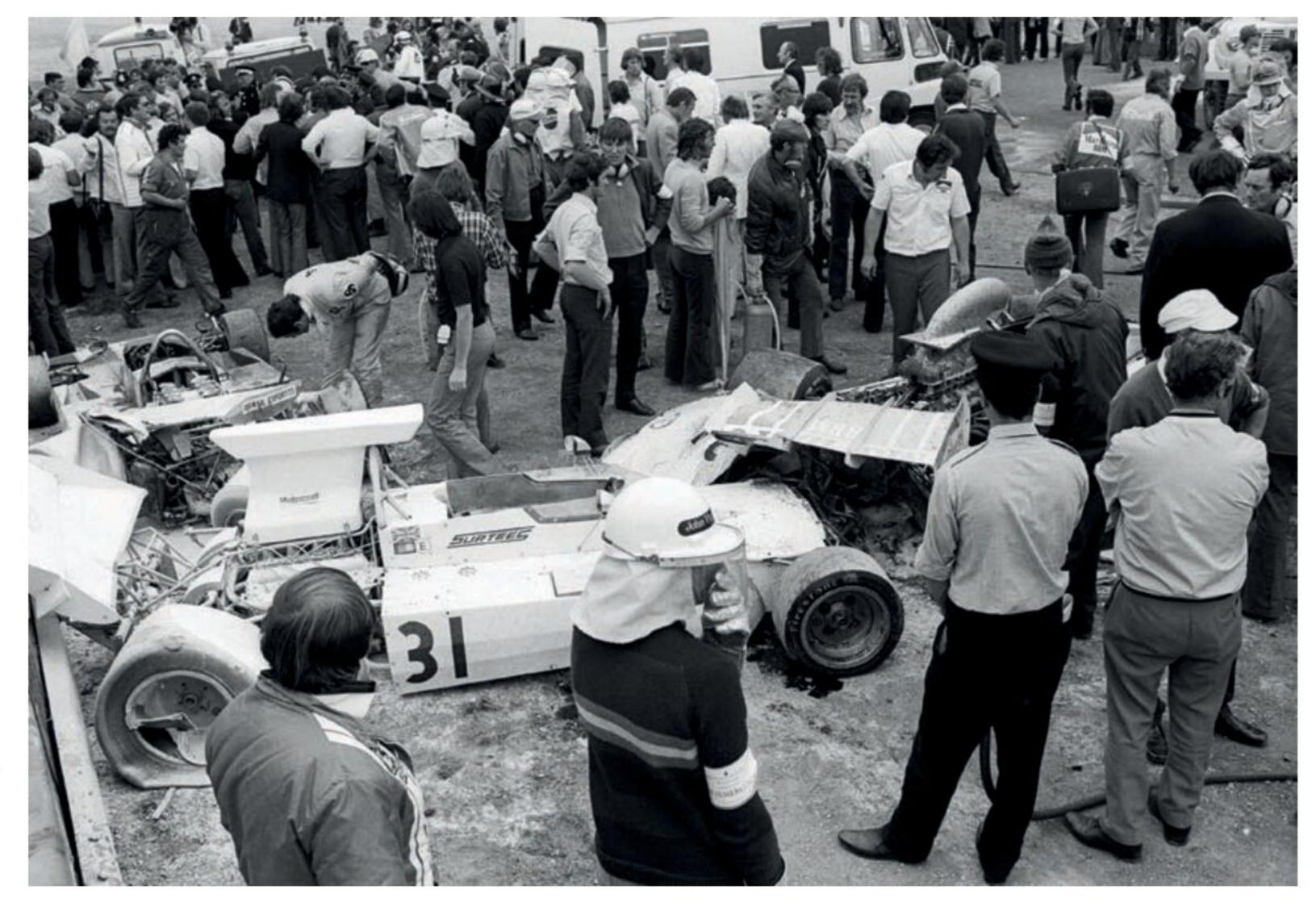


In 2008, on the Friday of the British GP meeting, the FIA awarded Donington Park a 10-year contract to host the race from 2010. This was despite Silverstone, in response to demands from Bernie Ecclestone to upgrade the facilities, being granted approval for a new pit and paddock complex. When Donington's plans fell through in late 2009 Silverstone pressed on with the work and the impressive new Silverstone 'Wing' was ready in time for the 2011 race



Twenty eight cars started the 1973
British GP but an almighty shunt
at Woodcote at the end of the first
lap, triggered by a Jody Scheckter
spin in his McLaren, caused an
immediate red flag. Nine cars in
total were involved, including the
two cars pictured here: Jochen
Mass's Surtees and Carlos Pace's
Brabham. After Andrea de Adamich
was cut out of his Brabham,
which took 40 minutes, all nine
failed to make the restart







1

Felipe Massa was one of four drivers to suffer tyre delaminations during the 2013 British GP. The Ferrari driver had qualified a lowly 11th but had already climbed to fourth when, on lap 10, his rear-left Pirelli exploded as he was going through Aintree corner. Lewis Hamilton, Jean-Eric Vergne and Sergio Pérez were the other drivers who had similar tyre failures



Although this looks like a case of Romain
Grosjean committing the ultimate sin of crashing
into Lotus team-mate Pastor Maldonado on
the opening lap of the 2015 race at Silverstone
at Village, Grosjean had actually been hit by
the Red Bull of Daniel Ricciardo, which forced
him into Maldonado. Not that this made much
difference as both Lotuses were forced to retire



Since joining Mercedes in 2013, Lewis Hamilton has been the king of Silverstone. His results for Mercedes in his home race read: fourth, first, first, first, second, first and first, plus a second in 2020's 70th Anniversary GP. In last year's British GP, he was cruising to victory until a front-left tyre failure on the final lap left him hanging on. He still got to taste the champagne after a record seventh British GP win



When Toleman entered F1 in 1981 it chose to use the two drivers who had raced for the team in F2 in 1980, Brian Henton and Derek Warwick. The TG181 was overweight and underpowered and neither driver had qualified for a race come British GP time. Henton had been 21st in Thursday's first qualifying before he crashed at the Woodcote chicane and had to use the slower spare on Friday, when he failed to make the grid







ZANDVOORT - REVITALISED

his summer, an old beast will be awoken.

It's been almost four decades since the Dutch Grand Prix was on the Formula 1 calendar. Niki Lauda won the race from Alain Prost by just over two-tenths of a second after 70 laps. The only Dutch entry, Huub Rothengatter, qualified in last and wasn't classified after finishing 14 laps behind the leaders.

Since that race, the Netherlands has fielded five Dutch drivers on the Formula 1 grid. But for the four that preceded Max Verstappen, they only scored 17 championship points

between them – and they were all scored by Max's father, Jos.

But that's all changed. Since Max's maiden win in his first ever race with Red Bull Racing, Orange fever erupted in Formula 1. Pumping drum-and-bass to a backdrop of smoke flares and orange t-shirts has become a regular sight at European races. But that dedicated fan base has been rewarded, with its own party on home soil.

The beach resort of Zandvoort will rise from the ashes this summer, providing spectacle both on and off the track. This fast-paced circuit is epitomised by its steeply-banked final corner – a unique sight

in Formula 1.

Should Max Verstappen be able to keep his Red Bull in control on the way to a victory, we may well see celebrations on a scale unseen in F1 before.

When the event was relaunched for the 2020 season, demand was off-the-scale. Dutch fans snapped up the grandstand tickets in minutes. But with plans re-arranged and the return now set for September, tickets have now become available for the race.

As European travel begins to open up once again, and Amsterdam right on Zandvoort's doorstep, there won't be a better race to escape to this summer.

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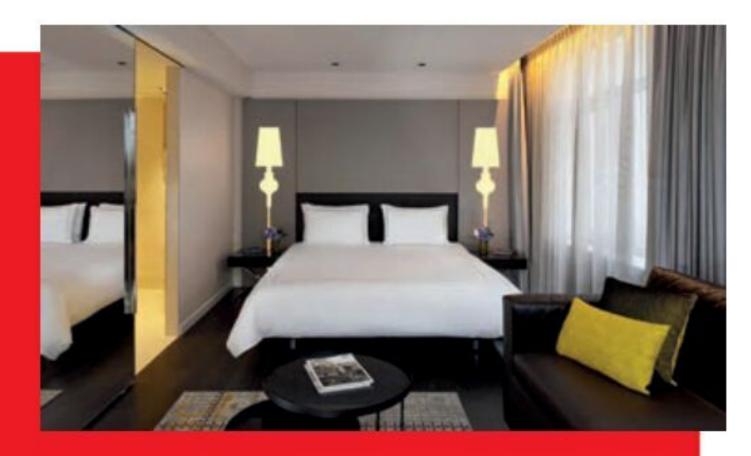
30 minutes to circuit

£1,030 for Thursday to Sunday for two people

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- Two weekend tickets in sought-after Tarzan Grandstand
- Amsterdam city centre location

£2,122 for Thursday to Sunday for two people





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RAGE DEBRIEF

F1 WORLD CHAMPIONSHIP ROUND 6

THE AZERBAIJAN GP IN 3 KEY MOMENTS



Tyre ire in the 'land of fire'

The Azerbaijan Grand Prix promoter likes to market this event with the tagline 'The speed is higher in the land of fire' and this year's race will certainly be remembered for what happened on the track's signature 2.22km main straight, where cars can reach nearly 350km/h. Race leader Max Verstappen was accelerating towards this terminal velocity at the end of lap 45 of 51 when his RB16B's left-rear tyre blew, pitching him into a 540-degree spin which included a mercifully indirect contact with the outside crash barrier.

The grand prix had already been neutralised for five laps behind the Safety Car after Lance Stroll experienced a similar failure on the same tyre compound (Pirelli's hardest available, the C3). This time around, the Safety Car led the field round via the pitlane before FIA race director Michael Masi red-flagged the race for 35 minutes so the track could be cleared.

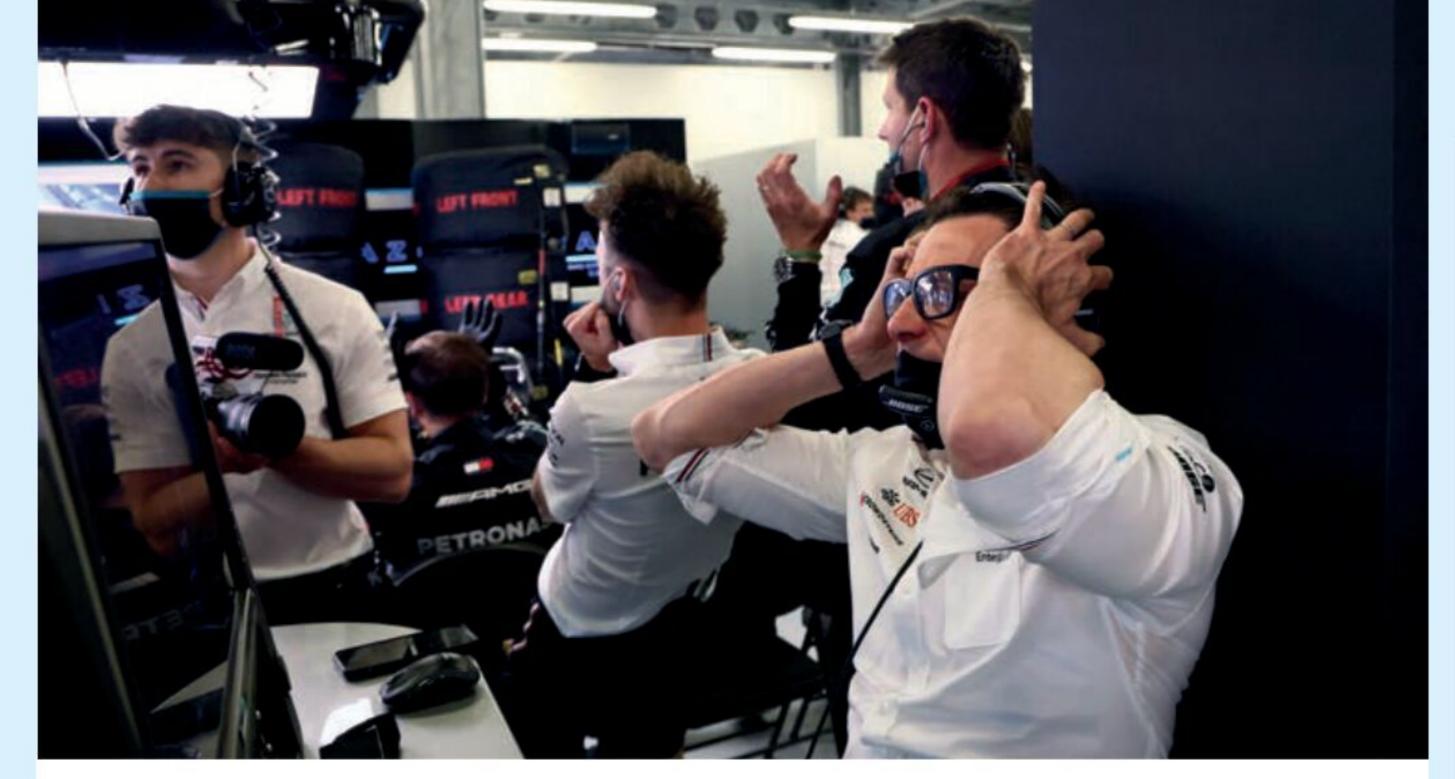
"With the number of laps that had to go," said Masi, "the recovery that was being undertaken, and the fact that there was so much debris on the pit straight, at that point, it was in my opinion, my judgement, the best option to suspend the race. Clean everything up and then have a race finish."

Suspending the race also enabled drivers to take on fresh tyres if they had sets available, teeing up a fascinating contest over the two laps remaining after the field set off again. Sergio Pérez took the restart from pole in the remaining Red Bull – one which was losing hydraulic pressure at a rate which nearly prompted the team to withdraw the car – with Lewis Hamilton's Mercedes alongside. When the lights went out Hamilton made the better start and got his nose ahead, even though Pérez tried to chop across – but Hamilton then locked his front wheels and speared straight on at the first corner as the rest of the field turned left.

In reacting to the chop, Hamilton had flicked the 'magic button' on the steering wheel which shifts the brake balance 100% forwards to heat front brakes and tyres on a formation lap. A stunned Hamilton came home 15th, his first finish outside the top 10 in eight years. Pérez recorded his second grand prix victory ahead of the Aston Martin of Sebastian Vettel and AlphaTauri's Pierre Gasly, who mugged Charles Leclerc for third at the restart and held off the Ferrari despite engine woes.

Post-race the focus turned to Pirelli and its decision to bring softer compounds this year – the C3 was the medium last time – but the company's motorsport boss Mario Isola suggested the deflations were caused by debris not wear. A post-race investigation suggested teams had been lowering pressures outside proscribed limits.

Pirelli also identified a 6cm cut on the left-rear tyre which came off Hamilton's car at his first stop.



The potential surprise of grasping an unexpected win for Mercedes and Hamilton in Azerbaijan, after Verstappen's tyre problem, turned to shock and despair for Toto Wolff when Lewis locked up and went straight on at the first corner, following the late-race restart

Traction takes control as Red Bull gains upper hand

Charles Leclerc might have contrived to put his
Ferrari on pole position in Baku – aided by cheekily
latching on to a tow from second-placed qualifier
Lewis Hamilton's Mercedes – but Red Bull had the
fastest race car and Max Verstappen might even
have been on pole but for a red flag. Crucially at this
front-limited circuit, it was the RB16B's rear-end
grip and traction around the sharp turns of the
first two sectors which yielded an advantage even
Mercedes could not overturn on the straights.

Both Red Bulls ran relatively deep-section rear wings with 'spoon' profiles whereas Mercedes' and Ferrari's were flat and slim. On a front-limited track like Baku this is one of many trade-offs in the mix – accepting greater tyre degradation as the cost of achieving higher speeds on the long straight. For Merc it was one of the few setup cards left to play after a torrid time in free practice, and it was probably the right decision: Hamilton described second on the grid as "monumental". Team-mate Valtteri Bottas, carrying more downforce, qualified 10th and had a miserable race to 12th.

Hamilton slipstreamed past Leclerc at the end of the first lap and Verstappen followed him by – as did team-mate Sergio Pérez, who started sixth but made short work of Carlos Sainz and Pierre Gasly. By the time Hamilton pitted for hard-compound tyres on lap 11, his starting set were already going off. The Red Bulls' rears were still in great shape and both cars 'overcut' him in the pits.

Verstappen's in-lap was 0.8s faster than
Hamilton's, Pérez's 1.258s quicker. So, although
Lewis was delayed in his box while Gasly's car came
up the pitlane, it's likely the Red Bulls would have
passed him anyway. From there he was hanging on
in third until Max's shunt brought out the red flag.

Going longer wins out for Vettel

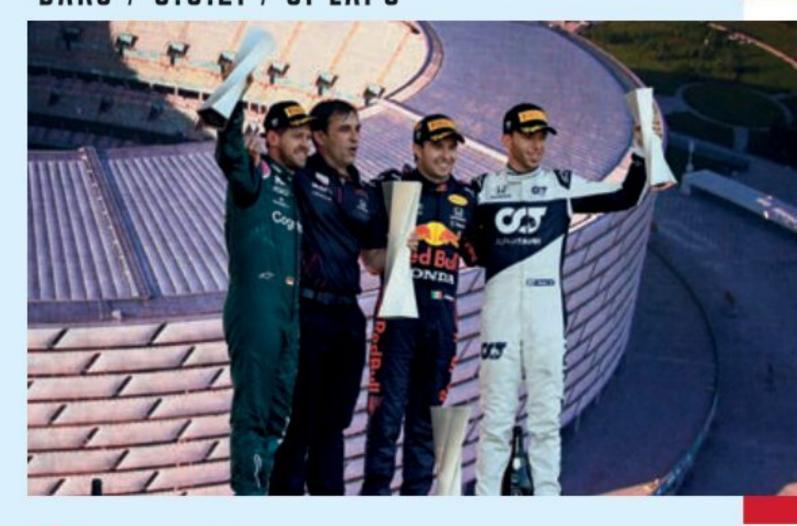
Sebastian Vettel put the Aston Martin name on an F1 podium for the first time with a canny drive, making the most of starting from 11th place with a free tyre choice. He made his fresh soft-compound rubber last 18 laps, enabling him to briefly lead the race and emerge from his stop in seventh.

That became sixth when team-mate Stroll – running fourth and yet to pit after starting on hard tyres – shunted and brought out the Safety Car. At the restart Vettel jumped Leclerc and Gasly, then benefitted from Verstappen and Hamilton's misfortunes to finish second.



RESULTS ROUND 6

BAKU / 6.6.21 / 51 LAPS



lst	Sergio Pérez Red Bull	2h13m36.410s
2nd	Sebastian Vettel Aston Mart	in +1.385s
3rd	Pierre Gasly AlphaTauri	+2.762s
4th	Charles Leclerc Ferrari	+3.828s
5th	Lando Norris McLaren	+4.754s
6th	Fernando Alonso Alpine	+6.382s
7th	Yuki Tsunoda AlphaTauri	+6.624s
8nd	Carlos Sainz Ferrari	+7.709s 🕏
9th	Daniel Ricciardo McLaren	+8.874s
10th	Kimi Räikkönen Alfa Romeo	+9.576s g
11th	Antonio Giovinazzi Alfa Rome	eo +10.254s
12th	Valtteri Bottas Mercedes	+11.264s §
13th	Mick Schumacher Haas	+14.241s 3
14th	Nikita Mazepin Haas	+14.315s
15th	Lewis Hamilton Mercedes	+14.315s 3 +17.668s 3 +42.379s*
16th	Nicholas Latifi Williams	+42.379s* ±
17th	George Russell Williams +	-3 laps/gearbox र्
18th	Max Verstappen Red Bull +	6 laps/puncture 🗜

Retirements

Lance Stroll Aston Martin 29 laps - puncture **Esteban Ocon** Alpine 3 laps - boost pressure

Fastest lap

Max Verstappen: 1m44.481s on lap 44

Medium (C4) Soft (C5)

TYRE COMPOUNDS USED











CLIMATE

AIR TEMP

TRACK TEMP

Sunny

26°C



DRIVERS' STANDINGS

1 Verstappen	105pts	11 Alonso	13pts
2 Hamilton	101pts	12 Ocon	12pts
3 Pérez	69pts	13 Stroll	9pts
4 Norris	66pts	14 Tsunoda	8pts
5 Leclerc	52pts	15 Räikkönen	lpt
6 Bottas	47pts	16 Giovinazzi	1pt
7 Sainz	42pts	17 Schumacher	0pts
8 Gasly	31pts	18 Russell	0pts
9 Vettel	28pts	19 Mazepin	0pts
10 Ricciardo	26pts	20 Latifi	0pts





F1 WORLD CHAMPIONSHIP ROUND 7

THE FRENCH GP



Red Bull earns "payback" as Mercedes cracks under pressure

Red Bull described its victory at Paul Ricard as "payback", having beaten Mercedes at one of its strongholds - and after all that sniping about flexi-wings and tyre pressure proscriptions too.

The last time F1 visited the south of France in 2019, Mercedes finished 1-2 and Max Verstappen trailed nearly 35 seconds behind, having qualified over a second off Lewis Hamilton. This time, Max took pole and, thankfully, we had a proper race.

Red Bull trimmed the rear wing on RB16B, focusing on straightline speed while asking the drivers to hang on in the twisty bits. Mercedes ran a higher-downforce configuration, offering greater cornering stability at the expense of drag.

When Verstappen arrived at Turn 1 ahead after the start, it looked as though a procession would ensue, but Max lost control as the wind unsettled his car, handing the impetus to Lewis. Game on.

Hamilton edged clear as Verstappen struggled against the wind and lower than expected grip. As Hamilton's lead grew, Mercedes looked in command. But its race unravelled following the call to pit

Valtteri Bottas early at the end of lap 17 of 53.

"The concern on Valtteri's car was an increasing vibration that was getting worse and worse, starting to get to levels where we will box the car for reliability concerns," said Mercedes engineering director Andrew Shovlin. "In reality, Valtteri's stop triggered the pitstops at the front. And that drove us to having to do a very long stint with Lewis."

Red Bull successfully covered Bottas by stopping Verstappen at the end of lap 18, then surprisingly retook the lead after Mercedes serviced Hamilton's car at the end of lap 19. Hamilton's stop took 2.2s, a tenth less than Verstappen's, but Lewis was six tenths slower on his in-lap and arrived at Turn 1 to see Max sweep past on the inside...

"My out-lap was good, but I didn't expect the undercut to be so big," said Verstappen. "I suddenly had so much more grip on the tyres. I think nobody including us – expected to undercut Lewis."

Max was correct. Mercedes was also confused. "I think we had the quicker car, probably," said team boss Toto Wolff. "We lost the race at the stop,

thinking we had enough protection against the undercut. We had a solid three-second gap and that wasn't enough as it looks. And from then on, we were on the back foot. We got it wrong."

Shovlin said Mercedes "don't fully understand why our models were telling us that we would have been OK - we can account for about two and a half seconds of the three seconds".

Red Bull then made what Christian Horner labelled a "ballsy call" by switching Verstappen to a two-stop and asking him to battle back to the front, while Sergio Pérez remained on a conventional one-stop plan to keep pressure on Mercedes.

Mercedes stuck rigidly to its unbalanced strategy, which asked too much of Pirelli's hard tyres. The fronts ran out of grip too soon, leaving Bottas - audibly furious at Mercedes ignoring his earlier pleas to two-stop – defenceless against Pérez, and ultimately Lewis too against Max.

Hamilton was fairly sanguine in defeat, but Mercedes' chief strategist James Vowles, not for the first time, apologised publicly: "This one's on us".





McLaren made the most of Ferrari's poor race and Norris and Ricciardo were easily the best of the rest in France

McLaren tops midfield as Ferrari slumps

McLaren team principal Andreas Seidl could do a decent sideline in soothsaying. He predicted after qualifying that Lando Norris (10th) and Daniel Ricciardo (eighth) would fare better in the race – and so it proved. The McLarens finished best of the rest while chief rival Ferrari slumped to its first pointless result of the season.

Ricciardo – boosted by braking tweaks to his car – started stronger, but was less comfortable with his car's handling than Norris, and a relatively early pitstop (lap 16) to jump Carlos Sainz and Pierre Gasly made the rest of Ricciardo's race harder.

Norris waited until lap 24 to stop, then scythed his way through to fifth, 11.8s clear of Ricciardo.

Sainz started fifth but dropped to 11th, while
Charles Leclerc stopped earlier than everyone (lap
14) so bad was his tyre degradation. He finished
16th after starting seventh. Ferrari thus gave up
third in the constructors' standings to McLaren too.

"We have a very narrow window of working range on our front tyres so struggle a lot more with graining or with front wear," explained Sainz.

Team boss Mattia Binotto added: "We knew coming here it would have been a difficult circuit in that respect, high speed corners where you're putting a lot of energy to the tyres, hot conditions.

"Can we address it with a simple development?
We may improve the situation but to solve it we
need to have some hardware change, like the rims,
which is not possible for [this] regulation."

More of the same until next year then...

Russell's "best ever race" for Williams

Sainz was the last runner to finish on the lead lap. Behind him (in 12th) came George Russell, who hailed this his best race yet for Williams given no cars retired.

Not for the first time Russell struggled away from 15th on the grid. He ran 18th behind teammate Nicholas Latifi early on. After stopping on lap 17 (the same lap as Bottas) Russell made his set of hard tyres last superbly, beating Yuki Tsunoda's AlphaTauri, Esteban Ocon's Alpine, both Alfa Romeos and Leclerc.

"Finishing ahead of these cars and finishing 12th on merit, I would go as far as saying that is probably our best ever race together [with Williams]," Russell told *Sky Sports*.



RESULTS ROUND 7

PAUL RICARD / 20.6.21 / 53 LAPS



lst	Max Verstappen Red Bull	1h27m25.770s
2nd	Lewis Hamilton Mercedes	+2.904s
3rd	Sergio Pérez Red Bull	+8.811s
4th	Valtteri Bottas Mercedes	+14.618s
5th	Lando Norris McLaren	+64.032s
6th	Daniel Ricciardo McLaren	+75.857s
7th	Pierre Gasly AlphaTauri	+76.596s
8th	Fernando Alonso Alpine	+77.695s
9th	Sebastian Vettel Aston Martin	
10th	Lance Stroll Aston Martin	+91.946s
11th	Carlos Sainz Ferrari	+99.337s
12th	George Russell Williams	+1 lap
13th	Yuki Tsunoda AlphaTauri	+1 lap
14th	Esteban Ocon Alpine	+1 lap
15th	Antonio Giovinazzi Alfa Rome	
16th	Charles Leclerc Ferrari	+1 lap
17th	Kimi Räikkönen Alfa Romeo	+1 lap
18th	Nicholas Latifi Williams	+1 lap
19th	Mick Schumacher Haas	+1 lap
20th	Nikita Mazepin Haas	+1 lap

Retirements: None

Fastest lap

Max Verstappen: 1m36.404s on lap 35

Medium (C3) Soft (C4)

TYRE COMPOUNDS USED











Wet

CLIMATE

AIR TEMP

TRACK TEMP

Sunny

27°C



DRIVERS' STANDINGS

1 Verstappen	131pts	11 Alonso	17pts
2 Hamilton	119pts	12 Ocon	12pts
3 Pérez	84pts	13 Stroll	10pts
4 Norris	76pts	14 Tsunoda	8pts
5 Bottas	59pts	15 Räikkönen	lpt
6 Leclerc	52pts	16 Giovinazzi	lpt
7 Sainz	42pts	17 Russell	0pts
8 Gasly	37pts	18 Schumacher	Opts
9 Ricciardo	34pts	19 Mazepin	0pts
10 Vettel	30pts	20 Latifi	0pts





F1 WORLD CHAMPIONSHIP ROUND 8

THE STYRIAN GP





Verstappen rewards Red Bull's commitment

"This was our most dominant win this season," said Red Bull team principal Christian Horner with some satisfaction after Max Verstappen crossed the Red Bull Ring's finishing line 35.743s ahead of Lewis Hamilton. But it wasn't this margin exaggerated by Hamilton's late stop for soft tyres to bag the point for fastest lap - which defined Red Bull's superiority over Mercedes in the Styrian Grand Prix. Not only was this the team's fourth consecutive victory, Verstappen seemingly had pace to spare throughout, routinely able to lap up to a quarter of a second faster than Hamilton.

Events in Austria served to define both the current state of play between F1's two leading teams and indicate where they may go from here as Mercedes revealed that it has in effect ceased development on the W12 to focus on next year's car. Red Bull continues to lavish resources upon the RB16B - there was talk of five vans with new parts at this event alone - and is reaping the benefits of living for the now. Verstappen and Hamilton started on the front row but the Mercedes was huffing and puffing to keep up from lap one, later almost spinning off at Turn 4 as the pitstops approached.

The question for Merc to ponder afterwards was whether it had erred in pursuing what engineering director Andrew Shovlin described as a "fairly wacky" setup to improve single-lap pace at the potential expense of greater tyre degradation.

"That was a bit of a lonely race," said Hamilton afterwards. "We need to find some performance."

Verstappen led by 5.5s when Hamilton stopped to swap medium Pirellis for hards at the end of lap 28, and he remained ahead after making his own stop a lap later. When Hamilton attacked, Max lifted his pace and began to pull away again. "As soon as we stopped to go on the hard, honestly that was a really enjoyable stint just to drive," said Verstappen.

Neither driver's team-mate figured in the battle for the lead, such as it was. A three-place grid penalty for spinning in the pitlane dictated that Valtteri Bottas start fifth after an impressive qualifying lap, while Sergio Pérez couldn't quite make the most of starting on the soft tyres, overtaking Lando Norris's third-placed McLaren on lap one before getting boxed in behind Hamilton and conceding the place.

It took Pérez 10 laps to dispatch Norris, by which time the leaders had broken clear, and Sergio fell behind Bottas after pitting on lap 26, delayed by a right-rear which did not want to be parted from his car. A second stop for set of medium tyres on lap 54 enabled him to gobble up a 20s margin to Bottas but he just ran out of time to challenge for third.



Despite this damage Leclerc made amends for his errors on the opening lap to follow Sainz home in seventh

Ferrari recovers and spoils McLaren's party

When Charles Leclerc deranged his front wing on the left-rear wheel of Pierre Gasly's AlphaTauri on the run down to Turn 3 on the opening lap, it looked like Ferrari was set to concede more ground to McLaren in the battle for third in the constructors' championship. Carlos Sainz had qualified 12th and was running 11th while the McLarens of Lando Norris and Daniel Ricciardo were in P3 and P9.

Leclerc's error was damaging since he'd arguably outperformed the car in qualifying to start seventh, while Sainz had struggled for feel and confidence on his front tyres and been eliminated in Q2. But after pitting for a new front wing and a set of hard-compound tyres Leclerc flew back into contention from the tail of the field to finish seventh.

"One of my best performances in F1, apart from the first lap," was Leclerc's summary.

Sainz had a quietly impressive race as he made his first set of tyres last until lap 41 – four laps after Leclerc's second stop – to emerge in seventh, though this owed a little to Fernando Alonso's Alpine having to slow for blue flags as Lewis Hamilton came through the field. Sainz made short work of Lance Stroll's Aston Martin for sixth

but had to spend 15 laps behind Hamilton as the Merc's tyres started to struggle. Aided by DRS and some background negotiations between the Ferrari and Mercedes pit wall, Sainz got by and set off in pursuit of fifth-placed Norris but fell 6.962s short.

Ricciardo had a disappointing race after gaining four positions on the first lap, only to lose them when he lost power and had to perform a system reset. That consigned him to a frustrated spot in the midfield DRS train behind Kimi Räikkönen and Sebastian Vettel, finishing outside the points.

Pneumatic failure costs Williams a potential top-10 finish

"Racing can be cruel," said George Russell after a power unit problem forced him to retire from the Styrian GP. Russell had put in an excellent qualifying performance to come within one hundredth of a second of putting his Williams through to Q3 – then started 10th anyway when Yuki Tsunoda was handed a three-place penalty for impeding.

Following the collision between Gasly and Leclerc, Russell ran in eighth behind Alonso's Alpine but was informed via radio that he would be "moving to Plan B for reliability". A long stop followed on lap 25 as the team topped up the car's pneumatic pressure. This failed to remedy the issue and a lap later Russell had to return for more attention. He retired on lap 36. "I think P7 was possible, I was quicker than Alonso," Russell said.



RESULTS ROUND 8

RED BULL RING / 27.6.21 / 71 LAPS



lst	Max Verstappen Red Bull	1h22m18.925s				
2nd	Lewis Hamilton Mercedes	+35.743s				
3rd	Valtteri Bottas Mercedes	+46.907s				
4th	Sergio Pérez Red Bull	+47.434s				
5th	Lando Norris McLaren	+1 lap				
6th	Carlos Sainz Ferrari	+1 lap				
7th	Charles Leclerc Ferrari	+1 lap				
8th	Lance Stroll Aston Martin	+1 lap				
9th	Fernando Alonso Alpine	+1 lap				
10th	Yuki Tsunoda AlphaTauri	+1 lap				
11th	Kimi Räikkönen Alfa Romeo	+1 lap				
12th	Sebastian Vettel Aston Martin	n +1 lap				
13th	Daniel Ricciardo McLaren	+1 lap				
14th	Esteban Ocon Alpine	+1 lap				
15th	Antonio Giovinazzi Alfa Rome	o +1 lap				
16th	Mick Schumacher Haas	+2 laps				
17th	Nicholas Latifi Williams	+3 laps				
18th	Nikita Mazepin Haas	+3 laps				
Retirements						

TYRE COMPOUNDS USED

Lewis Hamilton: 1m07.058s on lap 71

Medium (C3) Soft (C4)



Fastest lap



George Russell Williams

Pierre Gasly AlphaTauri







36 laps - engine

1 lap - suspension damage

CLIMATE

AIR TEMP

TRACK TEMP

Sunny

26°C



DRIVERS' STANDINGS

1 Verstappen	156pts	11 Alonso	19pts
2 Hamilton	138pts	12 Stroll	14pts
3 Pérez	96pts	12 Ocon	12pts
4 Norris	86pts	14 Tsunoda	9pts
5 Bottas	74pts	15 Räikkönen	lpt
6 Leclerc	58pts	16 Giovinazzi	lpt
7 Sainz	50pts	17 Russell	0pts
8 Gasly	37pts	18 Schumacher	0pts
9 Ricciardo	34pts	19 Mazepin	0pts
10 Vettel	30pts	20 Latifi	0pts





RAGE PREVIEW

F1 WORLD CHAMPIONSHIP ROUND 10

BRITISH GP

16-18 July 2021 Silverstone





RACE DATA

Venue Silverstone Grand Prix Circuit

First GP 1950

Number of laps 52

Circuit length 3.66 miles

Longest straight 0.49 miles

Race distance 190.262 miles

Lap record 1m27.369s Lewis Hamilton (2019)

F1 races held 55

Winners from pole 20

Pirelli compounds C1, C2, C3

THE MAIN EVENT

It's coming home: Formula 1 returns to Silverstone, venue of the first world championship grand prix in May 1950. Not only that, it's highly likely (though still subject to final confirmation as this edition of GP Racing went to press) that 140,000 fans will be allowed to attend. Good news indeed, for the circuit is famed for its race day atmosphere.

High top speeds and open corners place the onus on trading off drag against downforce. Those high-speed corners make this one of the toughest circuits on tyres note the chaotic scenes here last year. It's no surprise Pirelli has allocated its hardest compounds and will no doubt be scrutinising the data nervously, keen to avoid a repeat of the race winner crossing the line on three wheels...

2020 RACE RECAP

Last year's race was the first of a COVID-imposed doubleheader behind closed doors, but it appeared to be business as usual on track: the Mercedes of Lewis Hamilton and Valtteri Bottas qualified 1-2 and led the early running from Max Verstappen's Red Bull and Charles Leclerc's Ferrari.

It was an incident-strewn race featuring two Safety Cars but the drama peaked in the closing laps. Bottas suffered a front-left tyre delamination and was forced to pit with three laps to go, dropping to 12th while Carlos Sainz had an identical failure on his McLaren. Verstappen had enough in hand over Leclerc to make a precautionary stop for new tyres while Hamilton nursed his car home - and lost his front-left on the final lap, only just holding on to the lead.

KEY CORNER: TURN 15 Named after the exclusive nearby public school, Stowe is a fast-entry right-hander at the end of Hangar Straight. A key overtaking point and one which calls for a delicate balance on the throttle.



CAR PERFORMANCE

Downforce level High Cooling requirement Medium

Full throttle 66%

Top speed 199mph

Average speed 153mph

TIMETABLE (UK TIME)

Friday 16 July

Practice 1 14:00-15:30

Qualifying 18:00-19:00

Saturday 17 July

Practice 2 12:00-13:00

Sprint Qualifying race

16:30-17:00

Sunday 18 July

Race 15:00

Live coverage Sky Sports F1

and Channel 4

THE WINNERS HERE...











2020

2020

Max Verstappen Red Bull

Lewis Hamilton Mercedes

Lewis Hamilton Mercedes

2019

2018

Sebastian Vettel Ferrari

2017

Lewis

Hamilton

Mercedes

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Tripod

Interface

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F1 WORLD CHAMPIONSHIP ROUND 11

HUNGARIAN GP

30 July-1 August 2021 Hungaroring



THE MAIN EVENT

Once derided as being like Monaco but without the proximity of walls, or yachts of hangers-on, the Hungaroring has come into its own in the hybrid era as drivers try to muscle heavier cars on more sensitive tyres around a layout which rewards momentum and punishes errors. It might be F1's slowest permanent track but preserving speed through it is one of the principal challenges.

Theoretically the Hungaroring should reward the cars with superior slow-corner performance, but the longwheelbase Mercedes has been in the ascendant here for the past three outings. Perhaps that might be about to change as Red Bull asserts itself once more?

2020 RACE RECAP

Round three in 2020 and a rare instance of a race being brought forward in this disrupted year, the Hungarian GP was shaped by rain in qualifying and on race day. Lewis Hamilton and Valtteri Bottas made it a Mercedes 1-2 in qualifying ahead of the Racing Points of Lance Stroll and Sergio Pérez, while Max Verstappen could only manage seventh - and then crashed on his way to the grid.

Red Bull repaired Verstappen's car just in time and, as Bottas and Pérez fluffed their starts, Max rocketed through to third as they reached Turn 3. Drying conditions dictated a change to slicks but Max was fast enough on his in-lap to relieve Stroll of second. There was no touching Hamilton, though, who was far enough ahead to pit for softs late on and bank the extra point for fastest lap.

KEY CORNER: TURN 14 Balancing entry and exit speed against lateral slip in a fourth-gear, 180-degree corner is tricky enough - even more so when it feeds onto a circuit's only meaningful straight with an overtaking point at the other end.



RACE DATA

Venue Hungaroring

First GP 1986

Number of laps 70

Circuit length 2.722 miles

Longest straight 0.546 miles Race distance 190.53 miles

Lap record 1m16.627s

Lewis Hamilton (2020)

F1 races held 35

Winners from pole 16

Pirelli compounds C2, C3, C4

CAR PERFORMANCE

Downforce level High

Cooling requirement High

Full throttle 55%

Top speed 193mph

Average speed 123mph

TIMETABLE (UK TIME)

Friday 30 July

Practice 1 10:30-11:30

Practice 2 14:00-15:00

Saturday 31 July

Practice 3 11:00-12:00

Qualifying 14:00-15:00

Sunday 1 August

Race 14:100

Live coverage Sky Sports F1

Highlights Channel 4

THE WINNERS HERE...











2020

Lewis Hamilton Mercedes Mercedes

2019 Lewis Hamilton

Lewis Hamilton Mercedes

2018

2017

Sebastian Vettel Ferrari

2016

Lewis

Hamilton

Mercedes

MARKETPLAGE





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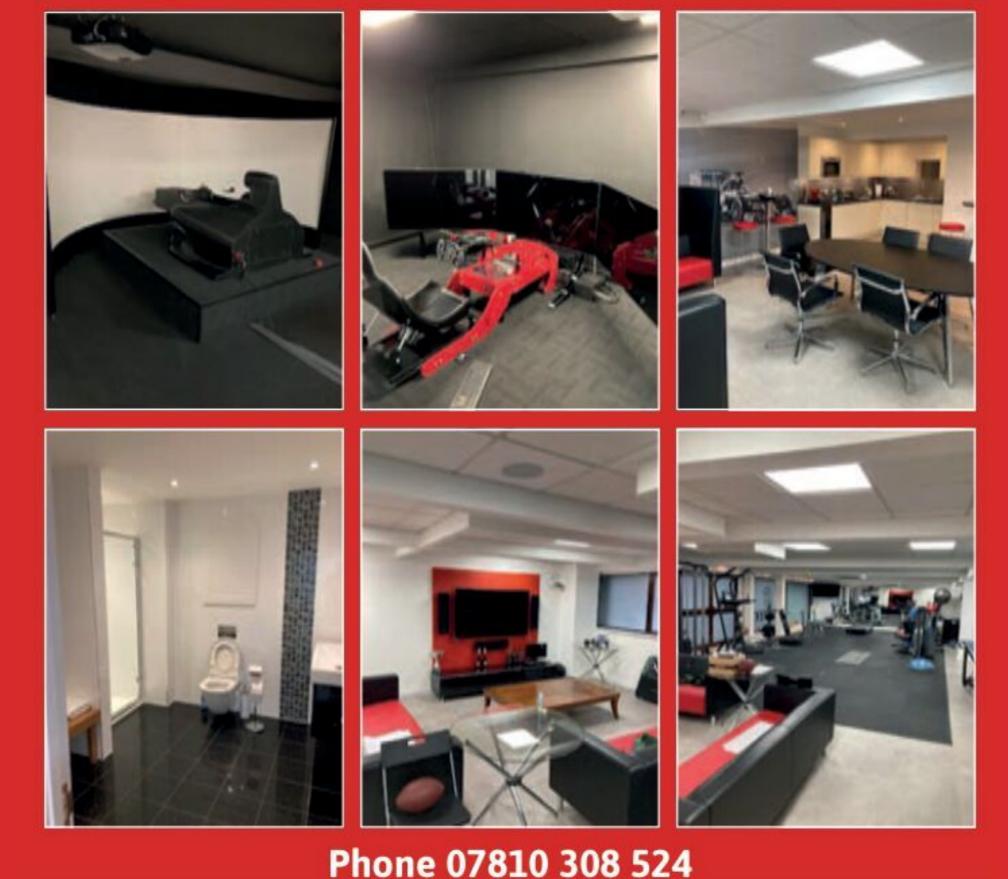
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Authors Damon Hill and Johnny Herbert

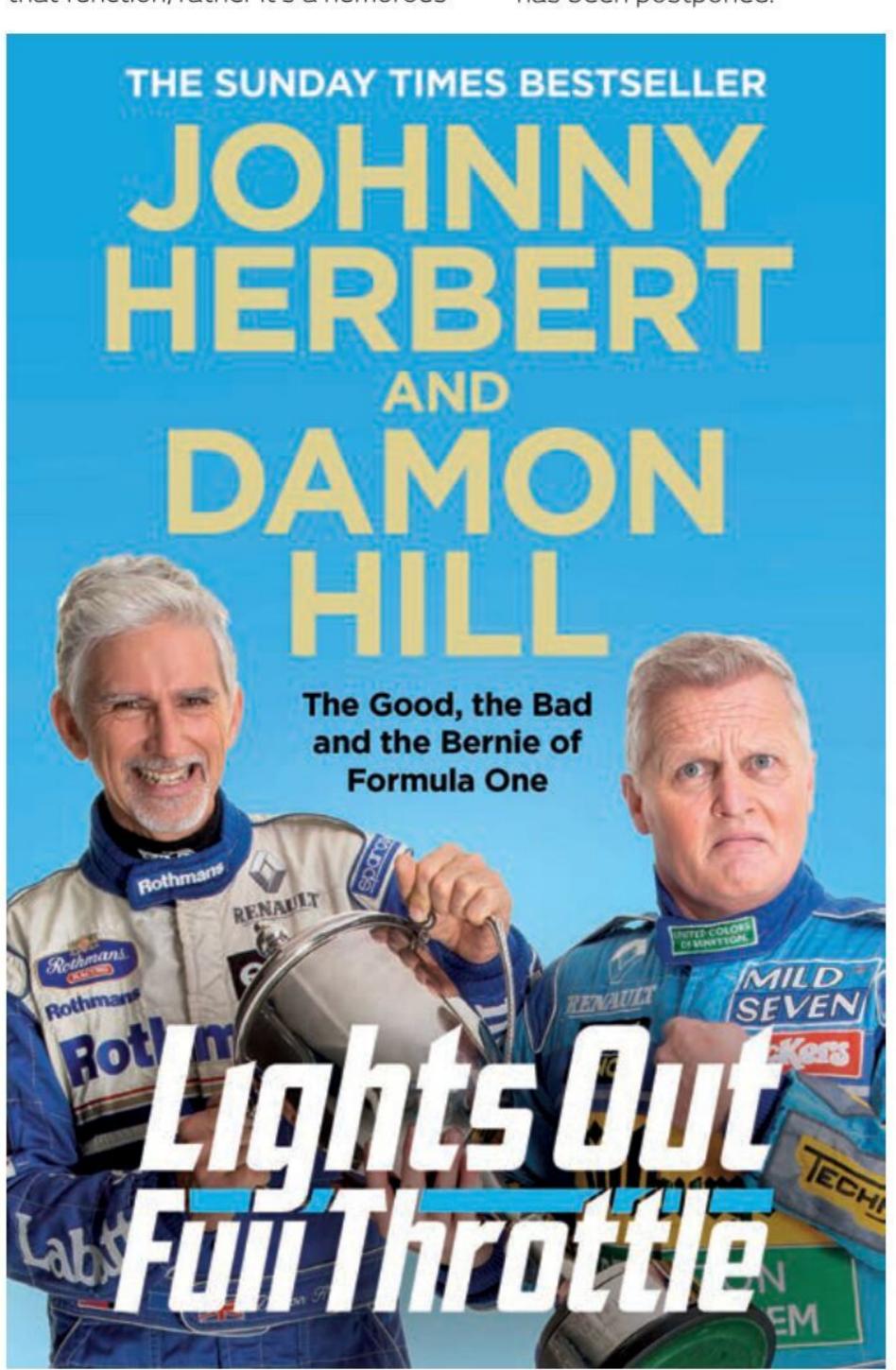
Price £20

panmacmillan.com

Damon Hill and Johnny Herbert will be familiar to *GP Racing* readers as sometime contributors to this magazine as well as enjoying successful top-flight racing careers. Both are also, of course, hugely popular winners of the British GP.

Hill and Herbert have both individually published autobiographies and this book doesn't set out to fulfil that function; rather it's a humorous

dialogue between the two as they take F1 fans on an insider's tour of motor racing's top echelon. The tongue-in-cheek tone may grate with some but the text's fluffy nature is clearly signalled by the cover treatment. Damon and Johnny were due to take the show on the road in an "Evening with..." live performance ahead of the British GP, but this has been postponed.





SILVERSTONE INTERACTIVE MUSEUM MERCHANDISE

Prices from £3.50 silverstonemuseum.co.uk

If you haven't visited Silverstone since the last time the British Grand Prix was open to fans then you'll have missed the opening of the track's new on-site attraction, an interactive museum telling the story of the circuit and its earlier life as an airfield. And of course, as ever with such facilities, you won't be able to leave without passing through the gift shop.

The Silverstone Interactive

Museum's merchandise is also

available via its online portal and

offers something for race fans of all



shapes and sizes, from baby bibs and body suits to t-shirts, sweaters and hoodies, aprons, art prints, cushions, tea towels, mugs and coasters.

The circuit itself isn't the only subject of the range; there's also items devoted to the Wellington

bombers which used to fly from there during World War II, and a range dedicated to the memory of the late, great Murray Walker, featuring the starting lights and his signature catchphrase "And it's GO GO GO!"



CLASSIC TEAM LOTUS TYPE 49 HOLDALL

Price £795

jordanbespoke.com

The latest hand-made bag from Jordan Bespoke arrives in perfect time for our British GP preview issue. Following on from the Type 25 bag, which paid tribute to the car driven memorably by 1962-1964 BGP winner Jim Clark, comes the Type 49, a homage to the car which won in Clark's hands at Silverstone in 1967 and was piloted to world championship victory the following year by Graham Hill.

Finished in Scottish Bridge of Weir leather, the holdall matches the Gold Leaf tobacco livery Lotus sported in 1968, signalling the end of the era of cars racing in national colours. The number 10 signifies the race number of Graham Hill's car in the Spanish GP that year, which he won as the team reeled from the shock of Clark's death in an F2 event. The holdalls can be customised with a number of the buyer's own choice. The zip pulls, luggage tag and key ring carry the embossed ACBC monogram from the original Lotus logo. Other details including the lining art and colours and the webbing colours, as well as the stitching, are also customisable.

FERRARI 250 GTO THE DEFINITIVE HISTORY

Author James Page

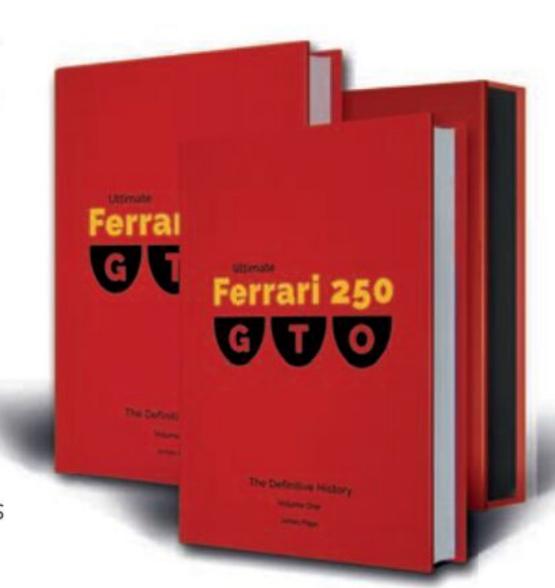
Price £450

porterpress.co.uk

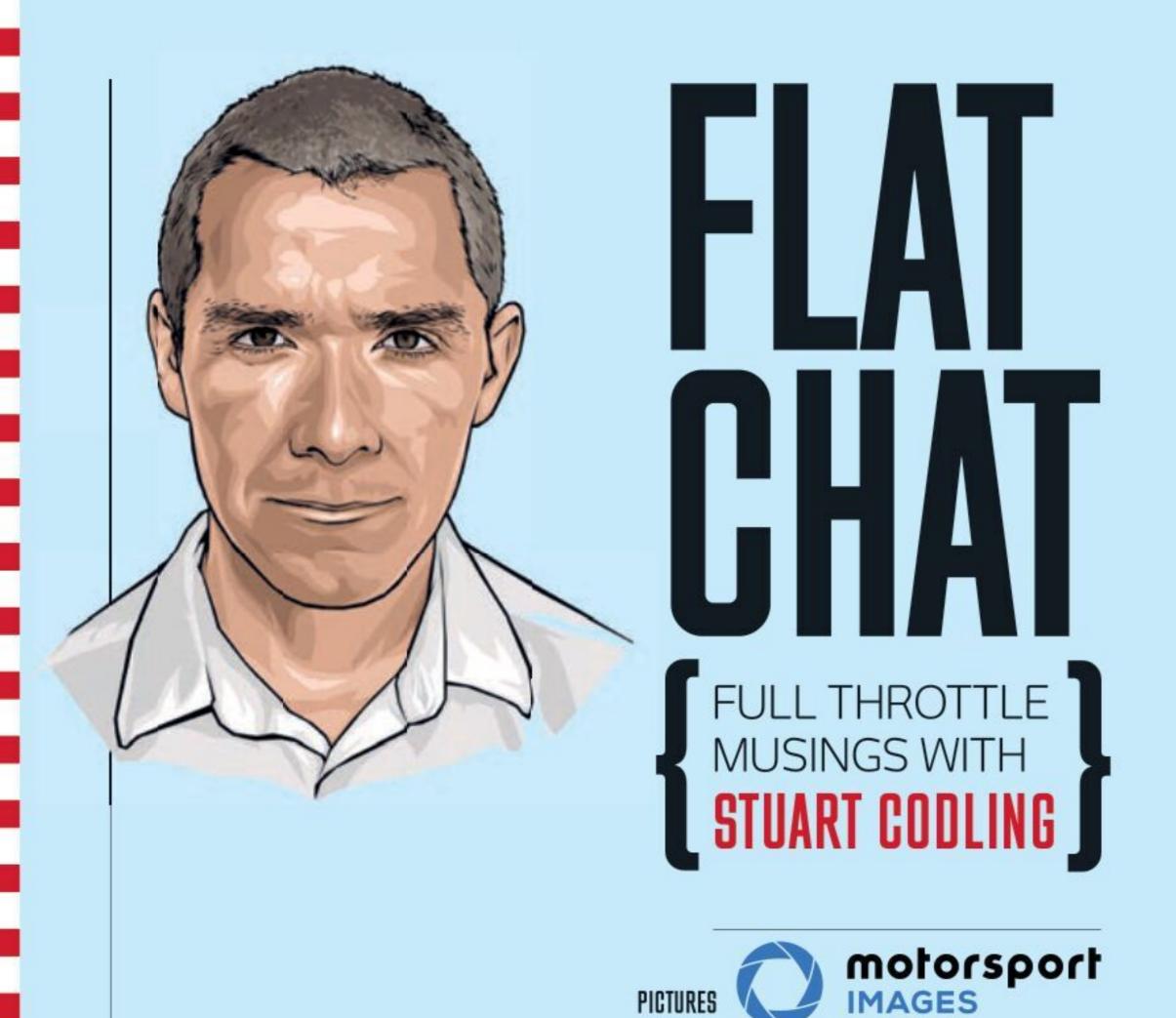
This lavishly produced limited-edition two-volume opus is the latest in Porter Press International's 'Ultimate' series. Focusing on the design, development, racing career and later life of the Ferrari 250 GTO – a car which defines the word 'iconic' – it returns the reader to an age where the star drivers raced week-in, week-out in an eclectic range of machinery. In 1962, for instance, John Surtees dovetailed an F1 campaign in a Lola with GT outings in a British-owned 250 GTO before joining the Scuderia Ferrari family in 1963.

While GTO values have soared in recent years, in the late 1960s the cars were viewed as virtually worthless and the surviving examples therefore have a tangled history.

Author James Page sets out to be as definitive as possible over the two volumes, the first of which sets the car in context and details its racing career, while the second sets out individual histories of the remaining chassis.







of other tracks' approach – he isn't necessarily to blame. Like anybody else providing a service, Tilke is prisoner to the caprice of that unfathomable beast: the client. Pretty much everything that sucks most obviously about Yas Marina, including several elements being amended in the facelift, carry the whiff of being mandated from above.

THE GOOD FOLK IN THE GRANDSTANDS WILL JUST HAVE TO SWALLOW BEING A LITTLE BIT FURTHER AWAY

For instance, the 'North Hairpin' – Turn 7 in engineerspeak – which might have been a great overtaking spot if someone hadn't decided to plonk a massive, elevated grandstand right on top of where the run-off ought to have been. The late Charlie Whiting, race director and safety delegate at the time, astutely clocked the absurdity of building what was in effect a brick wall at the end of a long straight and insisted on shoehorning in a chicane. In the new layout this compromise will be expunged by bringing the entire corner forwards

to include the run-off which should have been there in the first place, and the good folk in the grandstands will just have to swallow being a little bit further away.

Similarly, Tilke excused himself from the wretchedness of the complex of right-angle turns which threads around what was then known as the Yas Viceroy hotel, saying the owners decided late in the day to double the size of the caravansary in question.

The makeover will open the radii with the aim of making this section less stop-start – a glitter-rolling exercise if ever there was one...

But Tilke only has himself to blame for the circuit's other soon-to-be-expunged damp squib, the left-right-left at the end of the second straight, whose only calling card was a touch of adverse camber. That slope will soon be steeper and facing in the opposite direction as this whole section is replaced by a single banked curve — one which the acting head of the circuit described in a lavishly produced promo video as "iconic".

The deployment of that overused term – to describe something which doesn't even exist yet – sums up Yas Marina's abiding problem. It's always been trying too hard to be something it isn't. If it's any good, iconic status awaits – not the other way around.

GP Racing has a podcast! Search for 'Flat Chat with Codders' in your podcasting platform of choice.

YAS MARINA TO GO UNDER THE KNIFE AT LAST

It's arguably a cliché – but no less true for being repeated – that while you can't polish a turd you *can* roll it in glitter. What, then, to make of the news that the unloved Yas Marina circuit is to be given a nip-and-tuck in the hope of generating more overtaking opportunities for F1 cars?

Certainly, this was a case of now or never given the imminent arrival of a new technical formula which will eliminate DRS, the widely derided overtaking gimmick which has acted as Yas Marina's get-out-of-jail-free card for the past decade. For all the spectacle of the venue itself and the razzmatazz of the day-into-night format, it remains extraordinary that a track with a back straight so long you can't see the end of it from within the cockpit yields so few 'genuine' passes and so little strategic variety.

While the promoters pay a tidy sum for the honour of hosting the climax of the season, even the (vanishingly few) races here which *have* been title deciders were duds. Surely the only person

ever to have been on the edge of their seat during an Abu Dhabi GP was the blogger who accidentally hit 'publish' on their pre-written 'Fernando Alonso wins the F1 world championship' story during the 2010 Brazilian GP, and whose trigger finger must have been veritably trembling a week later as 'Nando spent umpteen laps fruitlessly staring at the rear wing of Vitaly Petrov's Renault.

While it's easy to finger circuit architect
Hermann Tilke – and experience seems to
demonstrate that the more organic and/or
intuitively designed venues on the calendar work
better than Tilke's cut-and-paste 'greatest hits

Thanks to Yas Marina's layout, Vitaly Petrov was able to hold off Fernando Alonso with relative ease in 2010



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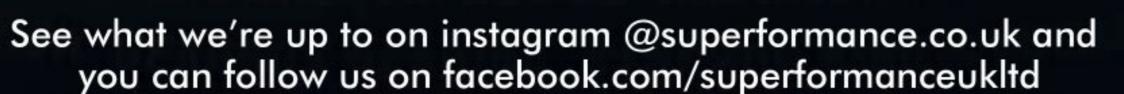
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